

Key factors of change processes in shared care
Viewpoints of managers, care providers and patients

Irmgard M.J.G. Eijkelberg

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Chapter 1

General introduction

1.1 Introduction

The subject of this thesis is the evaluation of processes involved in the improvement of the quality of care for the chronically ill in several shared care projects, in which the central issue is the ‘black box’ of substitution of care.

The underlying problem is that chronically ill patients often suffer from deficiencies in the care delivery they receive. First, they lack continuity of care between primary and secondary care (Spreeuwenberg, 1994), which is necessary since they often episodically need both care sectors simultaneously or successively. Second, they are confronted with insufficient knowledge among professionals in primary care about the long-term treatment of chronic illnesses (Ministry of Welfare, Health and Culture, 1991). Third, their number is increasing rapidly (Spreeuwenberg, 1994), while care delivery falls short of their gradually more demanding expectations (Spreeuwenberg and Eijkelberg, 2000). At the same time, opportunities are being missed to elicit these patients’ own views about treatment options and to engage them in care decisions (Spreeuwenberg and Eijkelberg, 2000; Schoen *et al.*, 2005).

Even in 2005, a survey among patients with chronic disease in Australia, Canada, Germany, New Zealand, the United Kingdom and the United States reported inadequate medication review by physicians, gaps in the physicians’ explanations about side-effects, shortfalls in advice on care management at home by health professionals and lack of routine help from nurses to manage their care conditions. Although these countries varied widely in the aspects put forward, this was not the case where patients with diabetes mellitus were concerned. In all six countries, the percentage of diabetics receiving the recommended screening tests during the past year fell short. Additionally, sicker adults in these countries generally reported failures in the coordination of care at hospital discharge (Schoen *et al.*, 2005). In view of all this, it seems obvious that those who are in need of more complex care are confronted with increased safety risks.

The solution to these deficiencies may be provided by arrangements of shared care, i.e. forms of care delivery in which generalists and specialists work together on the basis of agreements about co-operation, responsibilities and management, while the care is directed at the patients’ needs (National Council for Public Health, National Board for Hospital Facilities, 1995). This definition implies both ‘horizontal’ and ‘downward’ substitution. Horizontal substitution means the transfer of care delivery from a more specialised institute to a less specialised entity (Spreeuwenberg, 1994), e.g. from secondary care –like a hospital– to primary care –like a general practitioner (GP)–. Downward substitution implies the transition of care from a more highly qualified care provider to a less qualified one (Spreeuwenberg, 1994), often from doctor to nurse. These substitutions may allow shared care forms to achieve the drastic changes in care delivery and relationships between professionals needed by chronically ill people.

The introduction of this type of care requires restructuring tasks, finding new forms of co-operation as well as changes in attitude, mutual understanding and trust. For example, as early as 1991, the Dutch government acknowledged the pivotal role of nurses in the care delivery to the chronically ill. The government promoted the integration of cure and care elements in nurses’ tasks, which involved the delegation of routine medical tasks from physicians to specialised nurses willing to carry out these tasks in conjunction with their traditional nursing tasks (Ministry of Welfare, Health and Culture, 1991). Another example from the early 1990s was the proposal to organise joint consultations by medical specialists and GPs in primary care to upgrade GPs’ knowledge and expertise on chronic diseases, changing traditional relationships between physicians (Vierhout, 1994).

So far, however, there is a lack of in-depth knowledge about the key factors influencing the change processes that are taking place. This thesis intends to present this information by describing and analysing these factors and processes as they unfolded during the development and experimental implementation of several projects on substitution of care. In this attempt, it takes the viewpoints of several parties involved as the point of reference, viz. the views of managers, care providers and patients. It is hoped that this will open the 'black box' of substitution of care and allow it to be understood in a way that enables lessons to be drawn about better ways of leading tomorrow's health care innovation projects for chronically ill patients from start to finish. In this metaphor, the finishing line equals the attainment of continuity of each project's outcome after its formal project term has ended, emphasising the management perspective. Only then may the chronically ill really reap the benefits.

The various chapters of the thesis elaborate on the background and importance of the shared care concept and its inherent substitution of care. The remaining sections of the present chapter describe the specific research problem underlying this thesis, as well as the research questions and the research design and model used. The projects involved are briefly outlined, after which further details are presented in the next chapters, including an overview of the participants in chapter 2. The final section of this chapter presents an outline of the thesis.

1.2 Research problem

The general research problem addressed by this thesis is as follows:

What role do key influencing factors play in the process of development and experimental implementation of various shared care projects from the viewpoints of managers, care providers and patients, and what conclusions can be drawn for further implementation?

This means that the subject matter is research into the factors influencing the shared care projects described in section 1.5 and the extent to which the conclusions can be generalised to similar shared care projects and situations in health care innovation, including their follow-up activities.

The thesis focuses particularly on the management viewpoint because of the expected huge dynamic impact of the change management factor on the change processes in shared care. Consequently, this factor was studied more comprehensively than the others. Next, the care providers' viewpoints are presented, leaving the patient perspective to the last, in order to stress its importance.

1.3 Research questions

The research problem described in section 1.2 has been divided into a number of research questions this thesis tries to answer:

1. What key factors influence the process of development and implementation of shared care projects from the viewpoints of managers, care providers and patients? Taking each of these viewpoints in turn, the question was subdivided as follows:

Managers

- a. What factors exert positive or negative influences on change processes in integrated care from a quality point of view? (chapter 2)
- b. What key factors influence the development and implementation of shared care projects? (chapter 4)
- c. What are the characteristics of the persons who actually determine the outcome of shared care projects? (chapter 5)

- d. What successful management implementation tactics do these persons use to overcome resistance to change? (chapter 5)
- e. How do they communicate in these projects? (chapter 5)

Care providers

- f. What are nurses' views on horizontal and downward substitution, especially on the impediments to its accomplishment? (chapter 6)
- g. How do the physicians involved in horizontal and downward substitution look upon the nurses' view about the greatest impediment? (chapter 6)

Patients

- h. What are patients' opinions about judge nurse-led shared care? (chapter 7)
- i. What quality issues are regarded as the most important ones by the patients when judging nurse-led shared care? (chapter 7)

2. To what extent does the process of development and implementation of one or more of the shared care projects described in section 1.5 constitute a 'learning organisation', especially one characterised by double loop learning? This question was divided into some sub-questions, which were particularly investigated from the management viewpoint:
 - a. How can the influencing factors be useful for change managers as a starting point for achieving successful changes? (chapter 2)
 - b. How are the key factors linked that influence the development and implementation of shared care projects? (chapter 4)
 - c. How do the persons who actually determine the outcome of shared care projects communicate? (chapter 5)
3. Under what circumstances, to what extent and in what way can the (possibly combined or integrated) shared care projects mentioned in section 1.5 be implemented? This question was divided into a number of sub-questions relating to the viewpoints of managers, care providers and patients:

Managers

- a. How can the influencing factors be useful for change managers as a starting point for achieving successful changes? (chapter 2)
- b. How can structure, culture and power offer change managers a starting point for improving their innovative capacity when implementing shared care? (chapter 3)
- c. What successful management implementation tactics do those who actually determine the outcome of shared care projects use to overcome resistance to change? (chapter 5)
- d. How do the persons who actually determine the outcome of shared care projects communicate? (chapter 5)

Care providers

- e. What are nurses' views on horizontal and downward substitution, especially the impediments to its accomplishment? (chapter 6)
- f. How do the physicians involved in horizontal and downward substitution look upon the nurses' view about the greatest impediment? (chapter 6)

Patients

- g. How do patients judge nurse-led shared care? (chapter 7)
- h. What quality issues are regarded as the most important ones by patients when judging nurse-led shared care? (chapter 7)
- i. What lessons can be learned for the improvement of nurse-led shared care and the qualitative method of focus groups? (chapter 7)

Some questions posed in the subdivision relate to several of the three main research questions, which is why they are presented more than once.

Overall, the above research questions are based on the research model of influencing factors, which is explained in section 1.4.2.

1.4 Research design and model

1.4.1 Design

The basic research strategy in the process evaluation was that of case studies. This approach is considered appropriate to examine contemporary events in a real-life context over which the investigator has little control, since a case study is defined as ‘an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident’ (Yin, 1994, p. 13). This state of affairs applies closely to the scenario of the shared care projects in this thesis, in which the ‘shared care’ phenomenon under study cannot be clearly distinguished from its context.

Within the case study strategy, a multiple case study design was chosen, to enable comparison between several projects and to gather the most compelling evidence. In this context, data were collected periodically from participating managers and care providers by means of triangulation, which means collecting information from multiple data sources to corroborate the facts or phenomena (Yin, 1994). Data sources consisted of in-depth interviews, questionnaires, documents, reports and observations of formal meetings, whereas the interviews served as the main source of information. Additionally, focus groups were conducted for the benefit of chronically ill patients who were involved in various projects (Krueger, 1988; Morgan, 1993; Morgan, 1997). The rationale behind the use of focus groups was that it allows for group conversations about patients’ perceptions, beliefs, attitudes and experiences (Basch, 1987; Clarke, 1994; Dilorio *et al.*, 1994), which may improve the understanding of factors that play a role in the application of substitution of care.

1.4.2 Model

The research into the shared care projects described in this thesis was confronted with a chain of continuously changing real-life events, involving many people and organisations. It was further complicated by the fact that a number of participants switched to different roles and positions due to the substitution issue. One way to examine the inherent change processes is by focusing on its key influencing factors. In accordance with this approach, we applied a research model that had already been developed on the basis of empirical evidence gathered in the evaluation of innovation projects in the early 1990s (van Raak *et al.*, 1993). This model distinguishes a number of influencing factors, uses the open-system approach (Burrell and Morgan, 1979; Scott, 1992), and shows implicit characteristics of the interactionist approach (Strauss *et al.*, 1963). In order to render the interrelationships between the influencing factors explicit, the model was adapted to the purpose of this thesis. The influencing factors that are

distinguished can be either external or internal and can have a promoting or inhibiting impact. The external factors are factors outside the sphere of the project activities. They entail the role of authorities –like the government and health insurers–, as well as legislation and societal developments. The internal factors are factors that determine change processes within the project activities. These factors involve the local context –including culture, power and structure–, as well as commitment and change management. Change management involves goal-oriented steering of change processes by the management of the innovative project activities, mainly the project management. The steering entails the application of change strategies and tactics. With regard to the interrelationships between the factors, the adapted model assumes that participants learn from experience. This model is presented and specified in chapters 2 and 4, and further details are discussed in chapters 5 and 6.

The adapted model has served as a reference point to investigate the various viewpoints, i.e. the views of the management (Otto and de Leeuw, 1989; Mur-Veeman and de Man, 1990; van Raak *et al.*, 1993; de Leeuw, 1994; Mur-Veeman *et al.*, 1995; Walburg, 1997; Starren, 1997; Godfroij, 1998), care providers (Tijssen *et al.*, 1990; van Raak *et al.*, 1992; Barnhoorn and Walda, 1992; van Raak *et al.*, 1993; Mintzberg, 1996; Walburg, 1997) and chronically ill patients (van den Bos, 1989; Eijkelberg, 1991; Ministry of Welfare, Health and Culture, 1991, 1994; Post *et al.*, 1993; Waal *et al.*, 1993; Eijkelberg and Savelkoul, 1995; National Council for Public Health, National Board for Hospital Facilities, 1995; National Committee on the Chronically Ill, 1995; Dutch Patient/Consumer Federation, 1996; Proot and Ritzen, 1996; Walburg, 1997).

However, it should be noted that the patients' viewpoint has been particularly explored by means of focus groups. The outcome of the various viewpoints is presented in the next chapters, which also present the major lessons learned.

1.5 Shared care projects

The projects discussed in this thesis all aimed at improvement of quality of care by means of substitution. They were organised as dynamic, loosely linked care networks, since they shared a huge number of participating persons and highly diverse organisations with diverging interests. In 1994, the Diagnostic Co-ordinating Centre University Hospital Maastricht initiated two projects, in which specialised nurse practitioners played the pivotal role in the care network being developed. The project covered the Maastricht region and the target group consisted of patients with stable type 2 diabetes and stable Chronic Obstructive Pulmonary Disease (COPD) (Diagnostic Co-ordinating Centre University Hospital Maastricht *et al.*, 1996, 1997). Later, two further projects were set up which closely resembled the diabetes project, mediated by Synchron, the Co-ordination Centre on the Chronically Ill Limburg (van Wilderen *et al.*, 1998). The two further projects belonged to the Care Innovation Experiment in the North Limburg region. These four nurse-led projects all demonstrated downward substitution as well as horizontal substitution. Finally, the fifth project was initiated by Synchron and involved a joint consultation project between internist–endocrinologists of the Department of internal medicine of the University Hospital Maastricht and the GPs in the Maastricht region (Synchron *et al.*, 1996). This project involved the exclusive use of horizontal substitution.

Elaborate information on all five projects is presented in the next chapters.

1.6 Outline of this thesis

The outline of this thesis follows the order of the three perspectives chosen to structure its content, i.e. the management's view, the care providers' view and the patients' view. The

management perspective becomes explicit in the next four chapters, gradually turning from a general outline into a more detailed description. The perspective of the various categories of care providers is discussed in chapter 6 and the patient perspective is the central issue in chapter 7. Finally, chapter 8 summarises the conclusions and discusses the most relevant issues.

1.6.1 Management perspective

Chapter 2 introduces the key factors that influence change processes in various Dutch innovative projects to create networks that involve health care organisations and care providers. Examples are shown from the data gathered in the above five shared care projects. The chapter points out the value of these factors for change managers as they try to accomplish successful changes in such projects. In addition, the chapter observes that a learning component needs to be taken into account (Senge, 1994). This component is incorporated in an adapted model of key influencing factors in change processes presented in this chapter, which combines the influencing factors identified in previous research (Raak van *et al.*, 1993) and their interrelationships (Senge, 1994). On the basis of this model, several recommendations are made to help change managers deal with change processes in shared care projects or real-life situations of change.

Chapter 3 takes a close look at managing the key influencing factors that belong to the local context, i.e. power, culture and structure. Relevant general principles and event descriptions of the five shared care projects are used to elaborate on this issue, based on the assumption that shared care can be regarded as inter-professional working within a network context. In addition, the chapter presents practical advice to change managers to improve their behaviour in this respect.

Chapter 4 analyses the interrelationships between the key influencing factors in a nurse-led diabetes project and a diabetes project involving joint consultations by internists and GPs, projects which were finally integrated in one disease management project for the Maastricht region. The linkages are analysed using the adapted model of critical influencing factors described in chapter 2. On the basis of the analysis, the chapter presents a number of suggestions for managers in charge, to change the implementation of usual shared care in disease management (Kruijff and Schreuder, 1997; Spreeuwenberg, 1999).

To overcome the resistance to change that innovation projects on shared care are confronted with, chapter 5 explores the role of leadership in two nurse-led shared care projects on diabetes in the North Limburg region, which aim for continuation after the end of the project term. The characteristics of the persons who actually lead the projects are addressed, as well as their use of successful implementation tactics and the way they communicate. Some of the lessons learned from the projects are discussed, with the aim of improving the continuity of such projects into their follow-up phase.

1.6.2 Care providers' perspective

Chapter 6 explores specialist nurses' views on the impeding factors that affect two shared care diabetes projects they were involved in, one in the Maastricht region and one in North Limburg. Their views are compared with those of the physicians involved. On the basis of the outcome, conclusions are drawn that could help nurses, doctors and managers overcome these impediments in future.

1.6.3 Patients' perspective

Chapter 7 examines the views of a number of patients with type 2 diabetes mellitus and COPD on the two nurse-led shared care projects in which they were involved in the

Maastricht region, and their judgment on the importance of several quality issues. Additionally, the chapter discusses implications of the outcome for the near future, in particular the importance of genuine patient participation.

1.6.4 Managers', care providers' and patients' perspectives

Chapter 8 presents a summary of the main conclusions drawn in this thesis, based on the perspectives of managers, care providers and patients. It also discusses some methodological issues, and ends with some comments about innovations in the health care for the chronically ill.

References

- Barnhoorn H, Walda R. De eerste lijn op spitzten: zorgvernieuwing in de praktijk (Tipping the balance of primary care: care innovation in practice). Assen/Maastricht: Van Gorcum, 1992.
- Basch CE. Focus group interview: an underutilized research technique for improving theory and practice in health education. *Health Edu* 1987;14:411-448.
- Bos GAM van den. Zorgen van en voor chronisch zieken (Worries by and taking care of chronically ill patients). Utrecht/Antwerpen: Bohn, Scheltema & Holkema, 1989.
- Burrell G, Morgan G. *Sociological Paradigms and Organisational Analysis. Elements of the sociology of corporate life.* London: Heinemann, 1979.
- Clarke A. Focus group interviews in health-care research. *Prof Nurs* 1994;14:395-397.
- Diagnostic Co-ordinating Centre University Hospital Maastricht, University Hospital Maastricht, Regional Association of General Practitioners Maastricht-region, Synchron, 'Green Cross' home care agency Maastricht. Transmurale diabetesverpleegkundige. Shared care zorgmodel diabetes (Transmural specialised diabetes nurse. Shared care diabetes model). Maastricht: DCC, 1996.
- Diagnostic Co-ordinating Centre University Hospital Maastricht, University Hospital Maastricht, Regional Association of General Practitioners Maastricht-region, Synchron, 'Green Cross' home care agency Maastricht. Transmurale CARA-verpleegkundige. Shared care zorgmodel voor COPD (Transmural specialised COPD nurse. Shared care COPD model). Maastricht: DCC, 1997.
- Dilorio C, Hockenberry-Eaton M, Maibach E, Rivero T. Focus groups: an interview method for nursing research. *J Neurosci Nurs* 1994;26:175-180.
- Dutch Patient/Consumer Federation. Algemene kwaliteitscriteria: De kwaliteit van de gezondheidszorg in patiëntenperspectief (General criteria of quality: the quality of health care from a patient perspective). Utrecht: NPCF, 1996.
- Eijkelberg IMJG (ed). Verslag Cursus Reuma(toide Arthritis) Thuiszorg/Nazorg Najaar 1991 (Report on a Course on Rheumatoid Arthritis, Autumn 1991). Roermond: St. Laurentius Ziekenhuis, 1991.
- Eijkelberg I, Savelkoul M (eds). Sociale steun reumapatiënten. Verslag van een Studiedag (Social support for patients with rheumatic disorders. Report on a Course). Hoensbroek: Synchron, 1995.
- Godfroj AJA. De manager in de zorg op weg naar 2005 (The manager in health care on his way to 2005). In: Boon L (ed). *Ontwikkelingen in de gezondheidszorg, deel 27 Zorg & Toekomst. Dilemma's en nieuwe opties voor Verpleging & Verzorging Wonen & Zorg Ziekenhuiszorg Gehandicaptenzorg Thuiszorg Competenties* (Developments in health care, volume 27 Care & Future. Dilemmas and new choices for competences with regard to nursing & care, living & care, hospital care, care for the disabled, home care). Amstelveen: Stichting Sympos, 1998, 20-28.
- Krueger RA. *Focus Groups: A Practical Guide for Applied Research.* London: Sage, 1988.
- Kruijff AF, Schreuder RF. Managed care en disease management in Nederland (Managed care and disease management in the Netherlands). Maarssen: Stichting Toekomstscenario's Gezondheidszorg, 1997.
- Leeuw ACJ de. Besturen van veranderingsprocessen. Fundamenteel en praktijkgericht management van organisatieveranderingen (Guiding change processes. Fundamental and applied management of organisational changes). Assen: Van Gorcum, 1994.
- Ministry of Welfare, Health and Culture. Chronisch-ziekenbeleid. Chronische patiënten niet buiten spel. (Policy on chronically ill. No offside for chronically ill patients). 's- Gravenhage: Sdu Uitgeverij Plantijnstraat, 1991.

- Ministry of Welfare, Health and Culture-Committee Modernising Curative Care. Gedeelde zorg: betere zorg (Shared care: better care). 's- Gravenhage: Sdu Publisher, 1994.
- Mintzberg H. Organisatiestructuren (Organisation structures). Schoonhoven: Academic Service, 1996.
- Morgan DL. Successful focus groups. Advancing the State of the Art. London: Sage, 1993.
- Morgan DL. Focus groups as qualitative research. London: Sage, 1997 .
- Mur-Veeman IM, Man H de. Instellingen en hun organisatie (Institutions and their organisation). In: Maarse JAM, Mur-Veeman IM. Beleid en beheer in de gezondheidszorg (Policy and control in health care). Assen/Maastricht: Van Gorcum, 1990.
- Mur-Veeman IM, Raak AJA van, Jongerius-de Gier G. Samen gaan om sterk te staan. Een onderzoek naar samenwerking in de zorg voor verstandelijk gehandicapten (Joining hands to achieve a strong position. Co-operation in the field of care provision to persons with learning disabilities). Maastricht: Rijksuniversiteit Limburg, 1995.
- National Committee on the Chronically Ill. Advies gespecialiseerde verpleegkundige zorg voor chronisch zieken (Advice specialised nursing care on chronically ill). Zoetermeer: NCCZ, 1995.
- National Council for Public Health, National Board for Hospital Facilities. Transmurale somatische zorg. Advies van de Nationale Raad voor de Volksgezondheid en het College voor ziekenhuisvoorzieningen. (Integrated and continuing somatic care. Advice of the National Council for Public Health and the National Board for Hospital Facilities). Zoetermeer: NRV, 1995.
- Otto MM, Leeuw ACJ de. Kijken, denken, doen. Organisatieverandering: manoeuvreren met weerbarstigheid (Observing, thinking, doing. Organisational change: manoeuvring in the face of resistance to change. Assen/Maastricht: Van Gorcum, 1989.
- Post MWM, Arend IJM van den, Dingemans PJM, Haas CL de, Horn GHMM ten, Linden BA van der, *et al.* Kwaliteit van de zorgverlening: het patiëntenperspectief (Quality of care: the patients' perspective). *Kwaliteit & Zorg* 1993;2:50-59.
- Proot I, Ritzen W (eds). Protocollering van Zorg. Verslag van een Studiedag (Working on protocols in Health Care. Report on a Course). Hoensbroek: Synchron, 1996.
- Raak A van, Jongerius-de Gier G, Massop J, Mur-Veeman I. Brug tussen gisteren en morgen. Zorgvernieuwing als veranderingsstrategie voor een betere zorg in de toekomst. Evaluatie 'Programma Zorgvernieuwingprojecten Thuiszorg van WVC'. Eindrapportage (Bridge between yesterday and tomorrow. Innovative care as change strategy to achieve improved care in future. Evaluation 'Programme Innovative care projects on primary care by WVC'. Final report). Maastricht: Rijksuniversiteit Limburg, 1993.
- Raak van A, Tijssen I, Jongerius-de Gier G, Ritzen W, Mur-Veeman I. Laten leven om te overleven. Evaluatie 'Programma Zorgvernieuwingprojecten Thuiszorg van WVC'. Voortgangsrapportage 1991 (Let live to survive. Evaluation 'Programme Innovative care projects on primary care by WVC'. Proceeding 1991). Maastricht: Rijksuniversiteit Limburg, 1992.
- Scott WR. Organizations. Rational, natural, and open systems, third edition. Englewood Cliffs: Prentice-Hall, 1992.
- Senge PM. The Fifth Discipline. The Art & Practice of the Learning Organization. New York: Currency Doubleday, 1994.
- Schoen C, Osborn R, Huynh PT, Doty M, Zapert K, Peugh J, Davis K. Taking the pulse of health care systems: experiences of patients with health problems in six countries.
- Health Affairs. The Policy Journal of the Health Sphere, 2005;24(6) (november/december). [available from <http://content.healthaffairs.org/cgi/content/abstract/hlthaff.w5.509v2>].
- Spreeuwenberg C. (Net)werken voor chronisch zieken. ((Net)works for chronically ill. Maastricht: Rijksuniversiteit Limburg, 1994. (Inaugural lecture).

- Spreeuwenberg C. 'Disease management': primaire taak van verzekeraars of van zorgverleners? ('Disease management': principal matter of insurers or providers?). TSG: Tijdschrift voor Gezondheidswetenschappen, 1999;77:42-44.
- Spreeuwenberg C, Eijkelberg I. Keuzen, knelpunten en dilemma's in de zorg (Options, bottlenecks and dilemmas in the care delivery). In: Bos GAM van den, Danner SA, Haan RJ de, Schadé E. Chronisch zieken en gezondheidszorg (Chronically ill and health care). Maarssen: Elsevier gezondheidszorg, 2000.
- Starren HG. Grootmeesters in management (Masters of management). Utrecht: Teleac/NOT, 1997.
- Strauss A, Schatzman L, Ehrlich D, Bucher R, Sabshin M. 'The hospital and its negotiated order'. In: Freidson E (ed). The hospital in modern society. New York: Free Press, 1963.
- Synchron, University Hospital Maastricht, Regional Association of General Practitioners Maastricht-region, Diagnostic Co-ordinating Centre University Hospital Maastricht, 'Green Cross' home care agency Maastricht. Gezamenlijk consult internist-huisarts. Shared care zorgmodel diabetes (Joint consultation internist-general practitioner. Shared care diabetes model). Hoensbroek: Synchron, 1996.
- Tijssen I, Jongerius-de Gier G, Raak van A, Mur-Veeman, I. Over starten en volhouden. Evaluatie 'Programma Zorgvernieuwingsprojecten Thuiszorg van WVC'. Voortgangsrapportage 1990 (Starting and keeping up. Evaluation 'Programme Innovative care projects on primary care by WVC'. Proceeding 1990). Maastricht: Rijksuniversiteit Limburg, 1990.
- Vierhout WPM. Het gezamenlijk consult huisarts-specialist in de eerste lijn. (The joint consultation of GP and specialist in primary care). Maastricht: Rijksuniversiteit Limburg, 1994. (Thesis)
- Waal MAE van der, Lako CJ, Casparie AF. Voorkeuren voor aspecten van zorg met betrekking tot de kwaliteit. Een onderzoek bij specialisten en bij patiënten met een chronische aandoening (Preferences for care aspects in terms of quality. A study involving specialists and patients with a chronic disorder). Rotterdam: Instituut Beleid en Management Gezondheidszorg, 1993.
- Walburg JA. Integrale kwaliteit in de Gezondheidszorg. Van Inspecteren naar Leren (Integrated quality in health care. From Inspecting to Learning). Deventer: Kluwer Academic Publishers, 1997.
- Wilderen LJGP van, Alphen TVC van, Eijkelberg IMJG, Geven JHM. Zorgnetwerk voor diabetici in Noord-Limburg (Care network for patients with diabetes mellitus in North Limburg). Venlo: Zorgvernieuwingsexperiment St. Maartens Gasthuis, 1998.
- Yin RK. Case Study Research. Design and Methods. Applied Social Research Methods Series, vol 5, 2nd edition. London: SAGE Publications, 1994.

Chapter 2

Change processes: learning from Dutch integrated care management

By Eijkelberg I, Mur-Veeman IM

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2.1 Abstract

This article identifies the promoting and inhibiting key factors that influence change processes involved in a lot of Dutch innovative projects on networking in which a number of health care organisations and care providers are involved. The major network-internal factors are the local context (structure, culture and power), commitment and the change management. Their usefulness for change managers is pointed out to initiate successful changes in such projects. Examples are shown based on the data gathered from five Dutch shared care projects. It is observed that in addition to these factors also a learning component has to be taken into account. The resulting model of key-influencing factors in change processes is presented, as well as a number of problems and pitfalls change managers are confronted with when they come into play with these factors. Finally recommendations are put forward about how change managers can cope pro-actively both with these change processes and similar situations of change.

Keywords: change management, learning organisation, change processes, process evaluation, shared care, integrated care

2.2 Introduction

In the Netherlands, as in the UK, the necessity of integrated health and social care services is widely recognised (Øvretveit, 1993; Hampson et al., 1996; Wilson, 1997; Spreeuwenberg and Elfahmi, 1998; Tasker, 1998; Raak van et al., 1999). An important reason for this is the growing awareness in these countries among governmental, professional and care agencies of the increasing demand from patients with chronically ill diseases like diabetes and chronic obstructive pulmonary disease (COPD), for a coherent set of different care services. Examples of such care services are in- and outpatient hospital care, care of family doctors, district nursing, domiciliary care, social support, etc. Care agencies and professionals, for example hospitals, family doctors, district nursing and social support agencies, are not able to guarantee a high quality of the needed complex care, because they are not able to meet all different care demands by themselves. Thus they have to look for partners, who can provide that part of care that they alone are unable to give. In addition, in view of quality and efficiency arguments, health care agencies seem to be more willing to take innovation initiatives, like changes in tasks and task division between individual professionals and organisations. One important phenomenon in this respect is substitution of care, which means that certain former hospital-based care activities are transferred to other care professionals or organisations. Basically, there are two different types of substitution. First, horizontal substitution, which means the transfer of tasks from secondary to primary care, e.g. from the hospital to the family doctor's practice, among professionals of the same discipline. Second, downward substitution, addressing a transfer of tasks among professionals of different levels, for instance from a hospital-based or family doctor to a specialised nurse (Spreeuwenberg, 1994). Anyhow, whether co-ordination of tasks or substitution of tasks in addition is the issue, integrated care development and delivery compels health care agencies to create (organisational) interconnections i.e. networks, which are based on a more or less formalised and flexible system of agreements of caregivers. Consequently, such a system innovation will always result in different working-methods and ways of communication, in obligations that never existed before and in changing attitudes regarding patients and patient care as well as health care agencies and professionals. In short, the development of integrated care can be conceived of as a series of continuing processes of change.

In this article we will explore which factors from a quality perspective positively or negatively influence such change processes and, subsequently, how these factors can be helpful to change managers as a starting point for realising successful changes. For this we rely on research data and practical experiences in a large number of Dutch projects aiming at the development of integrated and continuing care. We will illustrate our argumentation with examples from five so-called inter-organisational and inter-professional ‘shared care’ projects, addressing patients with diabetes and COPD. Although our experiences and examples concern health care, we are convinced that our findings will be broader applicable to other organisations and sectors of society, because we reveal promoting and inhibiting factors on change processes at a higher level of abstraction.

Below we will first briefly typify the Dutch health and social care system to picture the context within which care agencies are functioning. Subsequently, the aforementioned shared care projects will be described. Next a discussion follows on promoting and inhibiting factors, which results in a general model to be used for diagnosing situations of change. Thereafter the question is addressed to how these factors can be used as a starting point for managing and controlling situations of change. We end up with a description of some practical recommendations and draw our final conclusions.

2.3 The Dutch health and social care system

The health and social care sector in the Netherlands can be considered a system, comprising a combination of elaborate government regulation on the one hand, and the mainly private/statutory provision of financing and care facilities on the other hand.

Since the 1970s state intervention has been growing by introducing financial and planning legislation, by formulating a huge number of policy measures and by launching a number of policy plans regarding the whole system (Raak van and Mur-Veeman, 1996). One important system feature is a structural split along different lines. The first line runs along the separation between planning and financing, the former falling under central government and advisory bodies (including provincial and local governments), while the latter is predominantly the responsibility of health insurers, nevertheless in the context of government legislation and regulation. The second structural split is along acute (e.g. family doctors, hospitals, physiotherapists, pharmacists) and long-term care (e.g. nursing homes, district nursing agencies, family care agencies) which are falling under different insurance schemes: the Sickness Fund Act (ZFW) and the Exceptional Medical Expenses Act (AWBZ), respectively. It is not allowed to transfer money from one scheme to another.

Providers (health and social care agencies and professionals) are all private not-for-profit foundations or private practices of individual and professional help. However, they cannot function like organisations in the industrial sector, because their services and financial bases are all regulated by the above-mentioned state regulation and financial regimes. Because of the growing number of patients with multiple care needs, providers become increasingly interdependent in a number of complementary ways. First in regard of the transfer of patients and also in respect of the transfer of information, especially patient data and information on treatment. Finally, general practitioners (GPs) and district nurses are in need of the transfer of expertise on specialist and technical care from hospitals.

Basically, there are two dominant concerns in the care for multiple-problem patients. First, how to contain the cost of professional care, and second, how to save and improve quality of care. This also implies the question how to make providers more responsive to patient needs of care, to make services more needs-led rather than providers-led. Substitution is often considered to be an outstanding solution of those problems.

In summary, the Dutch health care sector can be considered a system of high complexity and fragmentation, with a lot of stakeholders with different interests and power positions. This aggravates the delivery of optimal care to chronically ill patients with multiple care needs.

2.4 The cases: five shared care projects

We will look at five shared care projects, which started some years ago and are all located in the southern province of Limburg. One out of these projects (I) is addressing horizontal substitution only. In this project, hospital-based specialists and family doctors share consultancy hours for elder patients with diabetes. However, the GP remains primarily responsible for the care given in his or her practice. The other four projects focus on both horizontal and downward substitution, the former between hospital-based doctor and family doctor and the latter between hospital-based doctor and specialised nurse. The specialised nurse takes over the usual care given by a doctor, such as a number of patient checks a year and instruction how to take medicine. Furthermore she gives for example education about coping with the disease and co-ordinates care activities, like a case-manager. The patient care is given in the GP's practice. One out of these four projects (II) is addressing COPD-patients, while the other three projects (III, IV and V) concern elder patients with diabetes. Care and co-ordination of care are described in a protocol in all five projects, which means that the caregivers involved have completed a handbook with agreements and guidelines for treatment and task division (Diagnostic and Co-ordinating Centre University Maastricht *et al.*, 1996, 1997; Synchron, 1996; Wilderen van *et al.*, 1998). The projects aim at structural implementation of the shared care models.

A lot of health care agencies and professionals as well as some insurers are involved at the start of the projects. Table I gives an overview.

Table 1 Kind of substitution of each shared care model

Shared care model	Substitution:	Horizontal	Downward
I Joint consultation endocrinologist-GP for diabetes patients region Maastricht		*	
II Specialised COPD nurse region Maastricht		*	*
III Network for diabetes patients region Venlo-Velden: specialised diabetes nurse		*	*
IV Network for diabetes patients region Helden-Panningen: specialised diabetes nurse		*	*
V Specialised diabetes nurse region Maastricht		*	*

In the course of the projects the number of participants is steadily raised. Not only the number of family doctors has increased, but also the extent of participation of other agencies over all five projects. Table 2 shows the participation in the middle of 1998.

Table 2 Participants at the start of each shared care model

Model	Care: Primary (P)		Secondary (S)	P&S	Other		
	GP 1)	Nurs. Agency	Hospital 2)	T&DC 3)	Synchron 4)	Pat. Org.	Insurer
I	*	*	*		*	*	
II	*	*	*	*	*		
III	*	*	*		*		*
IV	*	*	*		*		*
V	*	*	*	*	*	*	

- 1) General practitioner; shared care model IV also pharmacist
- 2) Shared care models III and IV also the Office of Innovative Care
- 3) Transmural & Diagnostic Centre University Hospital Maastricht (GPs also take responsibility for this centre)
- 4) Co-ordination Centre on the Chronically Ill Limburg

2.5 Promoting and inhibiting factors

Carrying out a shared care model requires collaboration and co-ordination between independent care agencies and professionals which, therefore, inevitably have to give up part of their autonomy, be it often a small part. Practically speaking this appears to be a difficult situation for those involved: although in principle they are all willing to co-operate in order to improve the quality of their care services, they similarly are afraid to lose too much a part of their autonomy. They want to achieve successful collaborative arrangements on the one hand and to protect their interests and autonomy on the other hand, which results in a continuous tension between the collaboration-needs and the need of individual freedom of decision-making (Mijs, 1989). In principle, those involved do not want to lose or share power, resulting from changing task divisions and responsibilities.

Example

When preparing shared care model I discussion arises on the definition of responsibilities between a family doctor and a hospital-based medical specialist. The family doctors' representatives demand a fat-printed statement in the protocol implying that, in the frame of shared care patient consultation and treatment, the family doctor will be the first responsible caregiver under all circumstances, as long as patients are treated in the GP's practice. Later on the family doctors appear to be very satisfied about the shared care consultation, among others because the medical specialist leaves them their original responsibilities.

Different (professional and organisational) cultures and ignorance of each other's cultures appears to be another problem. Developing a common culture in the sense of shared ideas and values regarding task fulfilment, division of tasks and responsibilities, common spirit and good-fellowship should be stimulated and given time to grow.

Example

For years on end endocrinologists and nurses specialised in diabetes care in the hospital outpatient clinic (case III) are sceptical about comparing these nurses' expertise in diabetes treatment with the expertise of district nurses, specialised in diabetes care. Nevertheless, because of personnel problems in the outpatient clinic at a certain

moment, by mediation of other project participants, admittance is achieved of a district nurse to work and acquire experience in the clinic as a hospital-based nurse specialised in diabetes. For this the district nurse also follows an additional course concerning diabetes education. The daily collaboration and communication contributes to mutual understanding and shared values between the different nurses, as well as between the newly apprenticed nurse and the endocrinologists of the outpatient clinic diabetes team. Afterwards, as soon as the initiative is taken to start a new shared care project (case IV), this nurse becomes immediately involved by the diabetes team. As a result she works in this project as a specialised diabetes nurse, still being an employee of the district-nursing agency in the region.

In addition to problems of power and culture there is a third question, which concerns structure. For, shared care must be organised with the help of structural arrangements and material means. Often, new structures intervene with old ones and are threatening to established and safe positions. Notwithstanding this circumstance, building a new structure is almost always the first issue carried out, because changing the structure seems to be more concrete and easy than changing culture or power. To realise shared care, agreements have to be made about whom to involve, the division of tasks and responsibilities, the practical execution of tasks, communication patterns and co-ordination, for which instruments like protocols must be developed.

Example

At the start of two shared care projects (cases II and V) a project manager is appointed on the initiative of the (academic) hospital to start the preparatory phase (gathering information about bottle-necks and ideas of health care professionals, agencies and patients) concerning care for the chronically ill. Half a year later he appoints a project co-ordinator, working with the Transmural and Diagnostic Centre University Hospital Maastricht (T&DC). Neither functionary possesses any hierarchical competencies. Especially the project manager has to inform and to negotiate with potential participants. Family doctors and the district-nursing agency show a waiting attitude. One of the issues for them is the matter of financial support and financial contribution, respectively. After one year bargaining and informing, the project manager and the project co-ordinator recommend to start a small-scale project with downward and horizontal substitution of care for diabetic patients (case V) and a second project for COPD patients later on (case II). In these projects a variety of stakeholders have to be involved: the regional family doctors' association, the hospital (medical specialists and nursing staff) and clinical departments of the medical faculty affiliated with the hospital, the district nursing agency as well as the local insurer, the provincial patient platform and the Co-ordination Centre on the Chronically Ill (Synchron). A guiding committee for advice is installed. Later on a second guiding committee comes into existence to advise on the evaluation research, which will be executed by two university departments. To co-ordinate the diabetes project (case V) and the shared consultation project initiated by Synchron (case I), and to streamline the communication between both projects running in the same region, an additional guiding committee (policy group shared care diabetes) is installed. In the meantime the project manager succeeds persuading the district-nursing agency to take part of the project (cases II and V). Also, after approval of the project plans (cases I, II and V) by the regional family doctors' association, and a steering committee for shared care projects in the region, the family doctors are asked to sign up for the projects. They are already familiar with these projects, because of the introduction hereof during an additional schooling course

organised for them about diabetes treatment, based on joining forces between primary and secondary care. Next a protocol group with professional caregivers specialised in diabetes and staff as well as a representative of the diabetes patients' association is installed, in charge of the development of two collaborative protocols (cases I and V). It takes another six months before these protocols are completed, approved by the participants involved and published.

By analogy, the third shared care protocol (case II) is developed afterwards and in due time followed by composing a policy group shared care COPD.

Building this rather complex structure of an inter-agency network for shared care has appeared to be a time-consuming job. It took two years to get all different participants on one line, because ideas on who is allowed to do what and who is responsible for what, how to deliver the best care and who is allowed to control whom, appeared to substantially differ. All changes in task divisions, financial support and contributions etc. had to be negotiated. There was a lot of competition between the different projects; professionals and care-agencies felt threatened in their autonomy or had little confidence in the other participants' intentions.

Therefore, changing structures in a situation where hierarchical power is lacking, seems to be more or less concrete and easy, but in fact it is not, just because structure is firmly interwoven with power and culture. The *change management* (in cases II and V mainly the project manager), has inevitably to create *commitment* first in order to get support for the intended changes. This means that the parties involved are willing to change and feel responsible for the progress of the change processes. To achieve this, change managers have to model structure, culture and power relationships, which will below referred to as *local context* in such a way that barriers to change are minimized.

While making the first steps towards shared care working, the parties involved have to learn to handle their tasks and task division in another way, to differently approach each other and to develop different attitudes. For instance the doctor has to revalue the nursing professional and individual caregivers have to inform other persons involved about their care activities, which is, up to now, still unusual. What we mean and advocate is learning by making mistakes, accepting mistakes, taking risks, adopting openness, developing innovation mindedness, in short, a continuous learning process as pictured to explain the concept of the *learning organisation* (Morgan, 1986; Leeuw de, 1994; Senge, 1994a, 1994b). Learning organisations promote (the quality of) learning processes on individual level as well as on group level. The management has to guide and promote these processes and similarly be part of them. Managers also have to adapt their own behaviour or the behaviour of other managers, relying on observation of learning processes and their effects in their own organisation. This is called 'meta-steering' (Leeuw de, 1994). Actually, a great deal of organisational steering processes is management of managers (Otto and Leeuw de, 1989). Another important aspect of the concept of the learning organisation is the distinction between several types of learning (Swieringa and Wierdsma, 1990; Duren van and Manen van, 1992). First, single-loop learning focuses on 'learning new rules'. Second, double-loop learning concerns acquiring new insights and views, which the rules underlie. Third, triple-loop learning or meta-learning, addresses the above described meta-steering processes in which learning to change the underlying principles is the case. Real effective learning takes place with double-loop and meta-learning.

Example

The project group (case III) discusses the patient target group. It is agreed to include all diabetes patients from the region. However, in the written proposal of the project the focus is on increasing the number of well-regulated elder diabetes patients while at the

registration forms used by the subsidising organisation also the category not-well regulated diabetes patients is filled in. This obscurity is not removed and even grows when a group of family doctors, during a presentation by the specialised nurse of the shared care model they will be going to work with, refuses to co-operate unless the target group comprises only not well-regulated patients. In their opinion it is a waste of energy and time if the project pays attention to already well-regulated patients. They make clear that they were not acquainted with earlier agreements on the target group and refuse to change their mind. A lot of discussion and irritation follows: the specialised nurse is off stroke, the project manager threatens to return his portfolio and subsequently the conflict is sharpened by correspondence between the family doctors and the project manager, in which mutual displeasure is shown. Next, the project manager collects the protocol group to discuss the risen irritations. When the persons involved are calmed down, they make agreements again. The family doctors' representative promises to feed back the information to his colleagues, while the project manager states not to threaten with portfolio return anymore. However, afterwards he asks every participant to sign the minutes. This is not appreciated, because it is considered a misplaced expression of using a power strategy to oblige participants, to which the project manager wakes up. Nevertheless it comes to a compromise: the original target group will be maintained, but the family doctors concerned agree to give well-regulated patients the opportunity to learn how to check their blood sugar levels by themselves. Furthermore, the caused turmoil leads to a more accurate final edition of the protocol.

In this example several learning processes can be observed. On individual level, the family doctors' representative learns to give better feedback to his colleagues about agreements in the project group. The project manager learns not to threaten with portfolio return anymore and not to compel the participants to sign the minutes. On group level, the project group learns to better describe the patient target group and to generally formulate clear statements. The group also learns that information processing deserves secure attention. On individual as well as on group level, the learning process is not only single-loop, but also tends to double-loop learning: the participants obtain the insight that their measures of 'what is good' appear to be wrong. This learning process results in changing insights and views behind the rules.

Above, we have outlined some major network-internal factors, namely the local context (structure, culture and power), commitment and the change management, which influence organisational change processes. In our view these factors trigger *learning impulses* to foster organisational learning processes. Thus, they are basic components of our model of promoting and inhibiting factors in change processes (Figure 1). Of course, the external environment also plays a part. Therefore, we have included external factors as part of our model. Since we focus on internal factors in this article we will not elaborate on this issue.

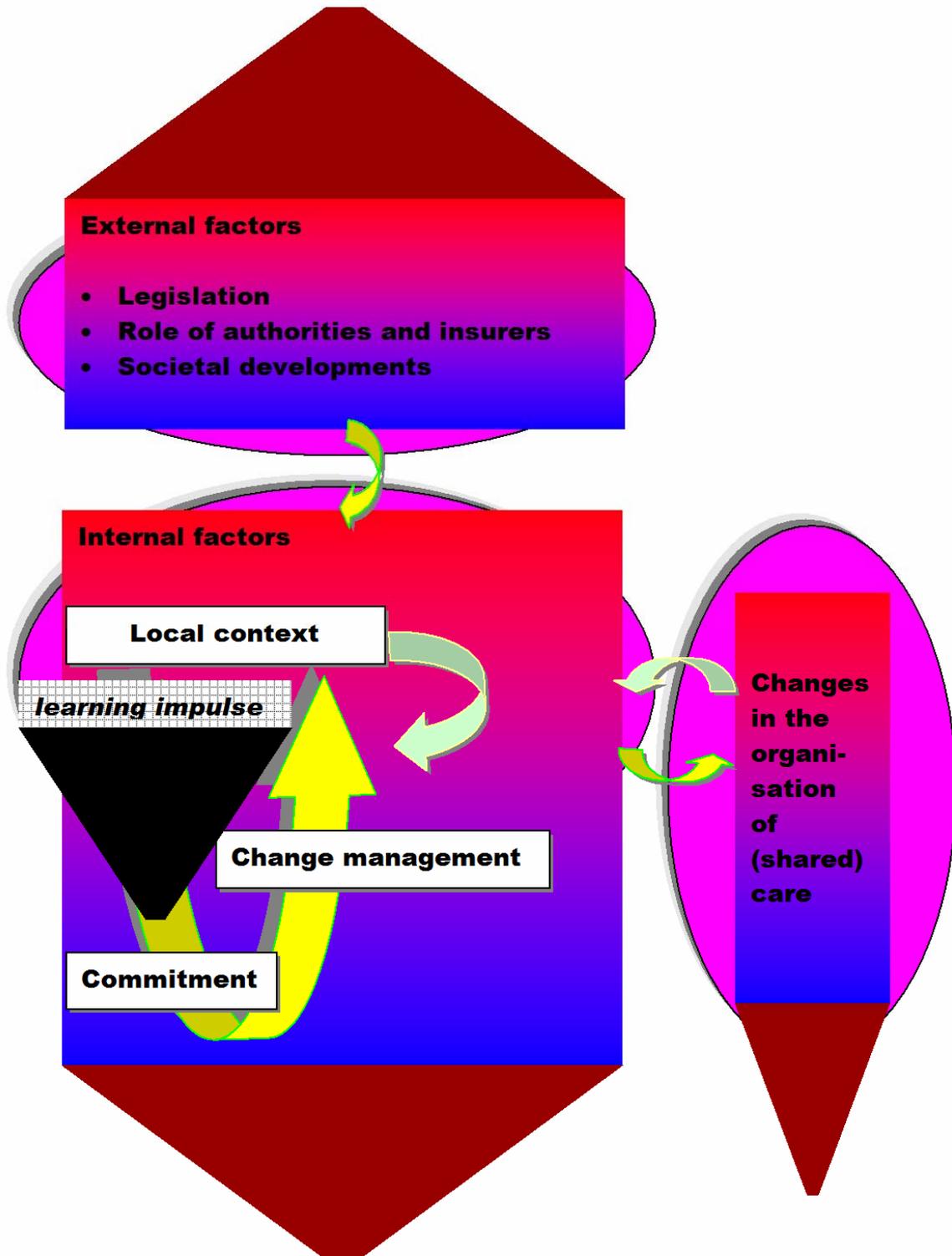


Fig. 1 Model of influencing factors with changes in (shared) care

2.6 The game of influencing factors

When getting involved in a change process the management should reflect from which perspective or vision they are going to work. It seems self-evident to choose a change perspective, which is fitting well to the specific change situation, but in practice this seems

often to be forgotten. In a network situation, in which hierarchical relationships are lacking and participation of those involved is more or less dependent of their own free will, the cultural-political vision and the evolution-perspective (Barnhoorn and Walda, 1992) are most useful. Following the cultural-political vision, those involved need to participate in shaping the changes and have sufficient discretion to decide on the course to be chosen. Change managers should support the implementation of the changes agreed upon, but they draw the line to the operational workers' discretion. The evolutionary perspective follows naturally from the former vision, but goes further. When drawing on the evolutionary perspective, it is the operational level, which also decides upon the course of the innovation. In the case of shared care, this means that the caregivers themselves, and not the change managers, are responsible for the course and progress of the change process. This is often difficult to practically be carried out, because of, first, the tension between pressure of work and change activities and, second, the tension between change objectives and self-interests.

Working from one of the above perspectives has clear consequences on how to deal with the change process. The change management has to use more indirect strategies and tactics. In order to get commitment and support the change manager has to play the game with the local situation and the learning organisation concept by:

- Developing new and better fitting structures.
- Reducing cultural differences and building a new common culture.
- Changing power positions and power relations.
- Giving impulses to learning processes according to the principles of the learning organisation.

2.6.1 Playing with structures and structuring

In developing new structures from the aforementioned perspectives, it is undesirable to introduce innovations without using the operational workers' expertise. If not, the workers will block the innovation and no changes in task division, communication patterns or co-ordination will be achieved. Our five cases demonstrate how the workers' expertise is used to shape new structures.

Example

In all cases the selected network-structure is the adhocracy (Mintzberg, 1996) that fits advanced innovations. For developing the shared care models an appeal is made to the expertise of different professional workers like doctors, nurses and other paramedical workers. These professionals jointly decide on task descriptions, task divisions, communication patterns and mutual co-ordination. Decisions upon widely acceptable forms of horizontal and downward substitution are made after intensive discussions.

In addition, the change managers have to give support by providing financial and personnel means, like administrative assistance for network activities, and offer the participating professionals extra training facilities, whereas caregivers will often get new operational or managerial tasks.

Example

In all five cases an administrative support structure is offered (secretary, organisational advice, accommodation etc.), especially by Synchron and T&DC and the Office of Innovative Care. One of the participating family doctors observes in this respect: "I am convinced that our shared care project is going to fail, when this support disappears."

Example

On the initiative of the T&DC the COPD-nurses (case II) are involved in setting up a training programme and given the opportunity to follow this training in order to learn how to execute lung-function checks.

The change managers, for example a project manager or policy group, can be helpful by giving learning impulses like inciting to self-reflection, self-evaluation and openness and by setting an example in this respect.

Example

The policy group shared care diabetes (cases I and V) sets up a regional evaluation meeting, dedicated to give feedback on the projects' progress to all participants. Information is given by the project management as well as by participating doctors and nurses. One of the family doctors explains later on that he learned from this information. It convinced him that the shared consultancy sessions with the medical specialist promote quality of care for all patients with diabetes mellitus. Consequently, he enlarged his patient target group for the shared consultation sessions from patients with specific problems to all his registered diabetic patients.

Walburg (1997) mentions self-evaluation in the context of the European Foundation for Quality Management, which he adapted to suit Dutch companies. This self-evaluation model is also applicable in health care. According to the model one possibility of self-evaluation is involvement of colleagues. The example below illustrates the employment as a tool once more.

Example

Two nurses work as a specialised diabetic nurse in the project (case V). After working with the shared care model for some time, one nurse manages to observe her colleague during a number of her consultation hours with the patients in order to find out whether they both are performing their identical tasks and responsibilities in the same way.

2.6.2 Playing with culture

Reducing cultural differences and building a new culture may be less concrete, but yet has to get special attention. It is important to build a culture, which helps organisations to develop as learning organisations (Walburg, 1997). A first step to reduce cultural differences is to make those involved being aware that differences of opinion are often based on differences of culture. Getting more insight into each other's (professional) culture is the next step. Awareness of and insight in cultural differences, however, is not sufficient. In order to close the cultural gap, mutual understanding and accepting the differences have to be developed. This can also be considered a learning process, for which the people involved have to be made sensitive.

Example

During the common multidisciplinary protocol development (cases II up to and including V), the nurses and family doctors from the protocol group have got a better understanding of their different views and expertise. Yet, those family doctors who never met the specialised nurses before show a waiting attitude. They doubt whether the nurses will have the 'right' views on treatment or the 'right' expertise to adequately do their new tasks. One of the family doctors observed: "I want to know everything about what the nurse is doing, what she is advising the patients. For, if things go wrong, I am responsible." Some of the nurses said that they expected some GPs waiting to see which way the wind blows. However, it appears that the more doctors and nurses co-operate,

the more their mutual confidence is growing. The nurses are more and more called in by the doctors on questions concerning patient treatment. Even a combination of protocols is applied (cases I and V).

Building a new common culture is just as important. For this to happen it is necessary to explicitly work on formulating common views and goals, to align working methods and to arrange regular contacts and communication about these aspects among others. This is always a step-by-step learning process.

2.6.3 Changing power positions and power relations

Changing power positions and -relations may be the most difficult task to be performed by the change management. Actually, such changes cannot be realised without changing structure and culture. If, for instance, doctors are not able and willing to value the nurses' competence and remain considering their expertise as second-class compared to the medical expertise and competency, the transfer of tasks from a doctor to a nurse together with corresponding competence and responsibility will never happen. Consequently, no substitution of professional discretion is left and there will not be any change of the doctor's power position with respect to the nurse. Care agencies are also afraid to discuss their own task domain or transferring part of their tasks, because they consider it losing power. This is the more a barrier to change processes, because power is seldom openly being discussed. More often it is the main part of the hidden agenda. Change managers have to be constantly alert to signs of power struggles and take this into account when negotiating with the parties involved.

Example

A choice has to be made about the employability of nurses within one project (case V). The project manager gets confronted with a substantial divergence of views between a hospital and a primary care agency. At stake are elements like trust, knowledge and experience. Both parties want their nurses to be chosen as specialised nurses within the project. Several emotionally charged meetings take place in which diverse negotiation attempts are undertaken by the change management. Finally a compromise proposal is accepted. Two nurses from the hospital will be designated for the particular project while two nurses from the home care agency will be assigned to another forthcoming shared care project of which the project manager is also in charge.

The above argumentation gives any insight in the problems and pitfalls change managers in inter-organisational networks are confronted with when playing with structure, culture and power and giving learning impulses for the sake of the change process. It is globally indicated what the change management can undertake, but how to structure the necessary activities is not explained yet. We will discuss this in the next part.

2.7 Practical recommendations

Our recommendations are about how to structure the approach of the change process, how to promote the learning capabilities of the professionals and agencies involved and which requirements may be placed on the change managers' capabilities.

In respect of the question how to structure the change-approach it is important for the change manager to map the existing structures, cultures, power positions and -relations.

Examples of relevant questions are (Barnhoorn and Walda, 1992):

Structure

- What inter-organisational relations are already present and what are their functions?
- How can these relations be characterised: strong or loosely coupled?
- Does the innovation fit existing structures and to what extent?
- Who are the parties involved?
- In what larger structures are the participants embedded?

Culture

- What are dominant views and conceptions of the persons involved regarding tasks and task division?
- What problems hinder collaboration and what (course of) change is preferred?
- To what extent are the participants interested and motivated to change?
- Is there any vision on goals to be achieved and on change methods?
- What are the favourite learning styles of those involved?
- How do participants cope with one another?
- What (professional) norms and values are regulating the participants' behaviour?
- Are there any subcultures?
- To what extent are the changes looked upon as fundamental and contentious?

Power

- What are dominant interests of the parties involved?
- How do the power dependency relationships look like?
- What (dis)advantages are resulting from the intended changes?
- What are the participants' power positions in the broader society?

Second, besides mapping structure, culture and power, the change manager has to stimulate discussions on the change perspective to be preferred in that particular situation. Such a discussion needs to result into a decision about the change perspective to be adopted. This is necessary to commit the participants to the aims and methods of change during the change process.

Another issue is the planning of the change process. This process has to correspond with the adopted change perspective. After adopting the cultural-political or evolutionary perspective, blueprint planning is absolutely undesired. In that case, planning ought to be loosely and step-by-step instead, whilst the parties involved must fill out the steps in mutual discussion and interaction.

Fourth, it is very important to take account of cultural differences and power issues playing a role in discussion and acceptance of new ideas. This has to be constantly monitored, while attending the process to prevent a deadlock in cultural clashes and power struggles. It will be helpful to constantly make aware the parties of these pitfalls and to stimulate them to critically reflect and evaluate the change process.

The change manager can be helpful here by giving continuous feedback and suggestions about what is going on.

Finally, the change manager needs to constantly emphasise the common goals and issues. Especially when professionals are concerned it is necessary to stress quality goals, because this is a strong common value. Some suggestions in this respect are:

- Try to stimulate a common culture, within which all network-members and -teams get actively involved in a continuing process of quality improvement, where mistakes and problems are considered a challenge to reach improvements (Bomers, 1990; Walburg, 1997).

- Create a solid, preferably cyclic and continuous feedback-system concerning internal and external functioning of the organisation next to relevant trends and developments (Bomers, 1989, 1990).
- Take care of appreciation of the members' contributions to quality improvement and show them (Walburg, 1997).
- Provide (material, personnel and financial) means to achieve quality goals. One possibility is the application of knowledge management (Weggeman, 1997; Walburg, 1997).
- Get the managers committed to the clients (Walburg, 1997).
- Stimulate managers to co-operate within networks because of self-interest like in business-life (Godfroij, 1998).
- Create multidimensional teams as basic elements of every learning organisation (Bomers, 1990).
- Organise learning situations linked to a learning cycle and different learning styles (Bomers, 1990).

It has become obvious that working constantly on achieving the attitude that change is a continuing and normal process embedded and integrated into the daily task-fulfilment, is the ultimate situation change managers can achieve. Performance of the above mentioned activities imply a lot of claims on the change managers' capabilities. Such managers ought to be able to carry out change tactics like negotiating, informing adequately and on the right moment, persuading and giving support including feedback.

2.8 Conclusion

Above we have described change processes regarding the implementation of interagency and inter-professional working in the Dutch health and social care system, in order to achieve integrated and continuing care for patients with multiple care demands. The implementation processes, which are unfolded with the help of examples of still running cases, take place in a specific sector, namely that of the human services. Moreover, these examples are embedded in the typical Dutch culture of negotiating and compromising between parties that do not consider themselves as subordinated. For the larger part, hierarchical pressure is absent. Notwithstanding that, we are convinced that our findings are broader applicable for two reasons. First, interagency and inter-professional networking is often a matter of interaction between relatively autonomous parties. Second, promoting and inhibiting factors are identified and conceptualised on a more widely applicable abstract level. The main factors, influencing change processes in inter-organisational networks, are the local situation (structure, culture and power), commitment and change management, with an emphasis on the extent the management succeeds in giving impulses to learning processes of the parties involved. It is our suggestion that organisations often focus on so-called 'single-loop-learning' (Argyris, 1977): doing things well, instead of 'doing the right things' (Drucker, 1988). However, as is illustrated by the examples a tendency towards learning is also observable at a small scale. Double-loop learning requires a totally different attitude towards learning processes, relying on more human-centred and dynamic -continuing change is necessary- perspectives.

Emphasis is on continuous learning and unlearning, the latter addressing critical reflection on habits and values, discussion of old fads and fancies and, if necessary, changing them into innovative views. The optimal situation is achieved whenever such innovative learning processes have become organisational routine. This also requires personal change of the individuals involved. For, as Senge (1994) notes, 'Only by changing how we think can we

change deeply embedded policies and practices. Only by changing how we interact can shared visions, shared understandings, and new capacities for co-ordinated action be established’.

References

- Argyris C. 'Double loop learning in Organizations'. *Harvard Business Review*, 1977;September/October.
- Barnhoorn H, Walda R. De eerste lijn op spitzen: zorgvernieuwing in de praktijk (Tipping the balance of primary care: care innovation in practice). Assen/Maastricht: Van Gorcum, 1992.
- Bomers GBJ. De Lerende Organisatie (The Learning Organisation, Inaugural lecture). Nijenrode: Universiteit voor Bedrijfskunde, 1989.
- Bomers GBJ. De lerende organisatie (The learning organisation). *Harvard Holland Review*, 1990;22(Voorjaar).
- Diagnostic and Co-ordinating Centre University Maastricht, University Hospital Maastricht, Regional Association of General Practitioners Maastricht-region, Synchron, 'Green Cross' home care agency Maastricht. Transmurale diabetesverpleegkundige. Shared care zorgmodel diabetes (Transmural specialised diabetes nurse. Shared care diabetes model). Maastricht: DCC, 1996.
- Diagnostic and Co-ordinating Centre University Maastricht, University Hospital Maastricht, Regional Association of General Practitioners Maastricht-region, Synchron, 'Green Cross' home care agency Maastricht. Transmurale CARA-verpleegkundige. Shared care zorgmodel voor COPD (Transmural specialised COPD nurse. Shared care COPD model). Maastricht: DCC, 1997.
- Drucker PF. De opkomst van de nieuwe organisatie (The rise of a new organisation). *Harvard Holland Review*, 1988;Herfst.
- Duren AJ van, Manen M van. Integraal veranderingsmanagement (Integrated change management). Assen/Maastricht: Van Gorcum, 1992.
- Godfroj AJA. De manager in de zorg op weg naar 2005 (The manager in health care on his way to 2005). In: Boon L (ed). *Ontwikkelingen in de gezondheidszorg, deel 27 Zorg & Toekomst. Dilemma's en nieuwe opties voor Verpleging & Verzorging Wonen & Zorg Ziekenhuiszorg Gehandicaptenzorg Thuiszorg Competenties (Developments in health care, volume 27 Care & Future. Dilemmas and new choices for Nursing & Care Living & Care Hospital care Care for the disabled Home Care Competence)*. Amstelveen: Stichting Sympos, 1998:20-28.
- Hampson JP, Roberts RI, Morgan DA. Shared care: a review of the literature. *Journal of Family Practice* 1996;3:264-279.
- Leeuw ACJ de. Besturen van veranderingsprocessen. Fundamenteel en praktijkgericht management van organisatieveranderingen (Controlling change processes. Fundamental and practical management of organisational change). Assen: Van Gorcum, 1994.
- Mijs AA. Ontstaan en levensvatbaarheid van interorganisatieverbanden (Rise and viability of interorganisational networks). In: *Sociologische Gids*, 1989;1:48-61.
- Mintzberg H. *Organisatiestructuren (Organisational structures)*. Schoonhoven: Academic Service, 1996.
- Morgan, G. *Images of Organization*. Beverly Hills, California: Sage, 1986.
- Otto MM, Leeuw ACJ de. Kijken, denken, doen. Organisatieverandering: manoeuvreren met weerbaarheid (Observing, thinking, doing. Organisational change: manoeuvring with resistance to change). Assen/Maastricht: Van Gorcum, 1989.
- Øvretveit J. *Coordinating Community Care. Multidisciplinary teams and care management*. Buckingham: Open University Press, 1993.
- Raak AJA van, Mur-Veeman IM. Home care policy in the Netherlands. Reforming legislation to facilitate the provision of multidisciplinary home care. *Health Policy*, 1996;36(1):37-51.

- Raak A van, Mur-Veeman I, Paulus A. Understanding the feasibility of integrated care: a rival viewpoint on the influence of actions and the institutional context. *International Journal of Health Planning and Management*, 1999;14:235-248.
- Senge PM. *The Fifth Discipline: The Art & Practice of The Learning Organization*. London: Currency Doubleday, 1994a.
- Senge PM. *The Fifth Discipline Fieldbook*. New York: Currency Doubleday, 1994b.
- Spreeuwenberg C. (Net)werken voor chronisch zieken. ((Net)works for chronically ill, Inaugural lecture). Maastricht: Rijksuniversiteit Limburg, 1994.
- Spreeuwenberg C, Elfahmi DMM. *Transmurale zorg: redesign van het zorgproces (Shared care: redesign of the care process)*. Zoetermeer: Raad voor de Volksgezondheid en Zorg, 1998.
- Swieringa J, Wierdsma AFM. *Op weg naar een lerende organisatie (Towards a learning organisation)*. Groningen: Wolters Noordhoff, 1990.
- Synchron, University Hospital Maastricht, Regional Association of General Practitioners Maastricht-region, Diagnostic and Co-ordinating Centre University Maastricht, 'Green Cross' home care agency Maastricht. *Gezamenlijk consult internist-huisarts. Shared care zorgmodel diabetes (Joint consultation internist-general practitioner. Shared care diabetes model)*. Hoensbroek: Synchron, 1996.
- Tasker PRW. The Organization of Successful Diabetes Management in Primary Care. *Diabetic Medicine* 1998;15(3):58-60.
- Walburg JA. *Integrale kwaliteit in de Gezondheidszorg. Van Inspecteren naar Leren (Integrated quality in Health care. From Inspecting to Learning)*. Deventer: Kluwer Academic Publishers, 1997.
- Weggeman M. *Kennismanagement. Inrichting en besturing van kennisintensieve organisaties (Knowledge management. Organising and leading highly knowledge oriented organizations)*. Schiedam: Scriptum, 1997.
- Wilderen LJGP van, Alphen TVC van, Eijkelberg IMJG, Geven JHM. *Zorgnetwerk voor diabetici in Noord-Limburg (Care network for patients with diabetes mellitus in North Limburg)*. Venlo: Zorgvernieuwingsexperiment St. Maartens Gasthuis, 1998.
- Wilson J (ed). *Integrated Care Management. The Path to Success?* Oxford: Butterworth Heinemann, 1997.

Chapter 3

**How to manage the implementation of shared care:
a discussion of the role of power, culture and structure in the
development of shared care arrangements**

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3.1 Abstract

The Dutch health care sector has become familiar with innovation of care delivery in order to meet the changing demand of the steadily ageing population, in need of complex care. Innovations often concern the implementation of shared care models, implying collaboration and substitution of care. Whereas ageing is a European-wide phenomenon, the development of such new care arrangements can be observed not only in the Netherlands, but also in the UK, Scandinavia, Italy and other countries. In this article we discuss the implementation of shared care, with the help of three concepts: power, culture and structure. We discuss the role of these factors from the view that shared care can be considered as inter-professional working within a network context. The central question is how structure, culture and power can offer change managers a starting-point for improving their innovative capacity. To illuminate our discussion we make use of a number of event descriptions from five Dutch shared care projects. Also, we give some practical recommendations for change managers.

Keywords: shared care, change management, power, culture, structure, professions, networks

3.2 Introduction

In The Netherlands, as in other European countries, major forces push the health care sector to innovation of care delivery. The ageing of the population leads to a considerable increase of chronic illness, such as diabetes mellitus or chronic obstructive pulmonary disease (COPD). Caring for these chronically ill people requires the combined efforts of a variety of care agencies and professionals, in order to integrate all aspects of such a complex care demand. The changing demand compelled providers to develop collaborative arrangements, often called shared care or integrated care and also to improve quality and efficiency of complex care. One of the tools to achieve this, is substitution, i.e. transferring the care to the 'lowest level', so far it is safe to the patient. Basically, there are two forms of substitution. First, horizontal substitution, which means the transfer of inpatient to outpatient hospital care or from secondary to primary care. Second, there is downward substitution, addressing the transfer of tasks among professionals of different levels, for instance from a doctor to a nurse (Spreeuwenberg, 1994).

Nowadays, shared care arrangements have become quite common in The Netherlands. They are often organised as 'projects', i.e. temporary arrangements, with different care providers involved, with circumscribed goals, plans, tools and time schedules (Raak van et al., 1983; Wijnen et al., 1991). Such projects are widely diffused all over the country. To illustrate this, we rely on the 'databank of innovative projects', that is developed and managed by three Dutch research institutes (Groot de et al., 1999). Currently, this databank comprises more than 5.200 project descriptions. We analysed the data of a more detailed study of 353 projects by Persoon et al. (1996), the majority of which was located in the general care sector, e.g. general hospitals, home care organisations, GP practices, social work agencies and paramedic practices, all including managers and health professionals. Here, we found the following characteristics with respect to target groups, professionals and care agencies involved, shared care activities and organisational arrangements:

- The main target groups are, first, patients with diabetes mellitus and, second, patients with cancer or rheumatoid arthritis. The available data indicate that the service users' numbers per project substantially vary, from only a few (e.g. 5) persons to a large number of 25.000.

- Hospitals, home care agencies and GP practices are the most involved care agencies. It is the nursing profession (i.e. hospital and community nurses) that plays the main part in shared care. By acting as a liaison nurse or case manager, the nurses are the linking pin between the different care agencies and professionals.
- Shared care activities appear to focus especially on organisational activities, such as co-ordination, collaboration and application of home care technology, as well as shaping the right conditions, such as promotion of expertise and mutual consultation between caregivers.
- Multidisciplinary teams, use of the liaison nurse and protocols are the most frequently used organisational arrangements.

Research has pointed out that the implementation of shared care is a long-term and laborious process (Hardy et al., 1999). This process appears to be hindered by a variety of inhibiting factors, which burden the management involved. Analysis of the factors and forces that have an impact here, can help managers to better understand what is going on and how to deal with the inherent difficulties and pitfalls. In this article we offer such an analysis by exploring the implementation of shared care with the help of the concepts of power, culture and structure, in the context of inter-professional working and networks. The central question is how structure, culture and power can offer change managers a starting-point for improving their innovative capacity, when implementing shared care.

Below we first explain our research methods. Next we elaborate on the role of structure, culture and power in five shared care projects that we investigated in more detail. Subsequently, we will discuss the impact of inter-professional working and networks. We end up with some recommendations and draw our final conclusions.

3.3 Methods

Implementation can be considered a series of actions and interactions by a variety of actors. Reconstruction of actions and interactions is a method to get insight into the arguments, strategies and decisions of actors. The interest in this method is growing, based on the awareness that insight in the arguments and discussions of actors involved helps better understand the processes and the forces lying behind (Fisher and Forester, 1993). Here we make use of such reconstructions in the form of event descriptions to illustrate the role of power, culture and structure in the implementation process. The event descriptions are derived from a research population of five Dutch shared care projects, which have been studied by researchers from the University of Maastricht.

The projects aim at the implementation of shared care to patients with diabetes mellitus and COPD. They were experimental projects, with the aim to disseminate their results. One out of these projects (I) addresses horizontal substitution only. In this project, hospital-based specialists and GPs share consultancy hours for patients with diabetes mellitus type 2. The GP remains primarily responsible for the care given in his or her practice. The other four projects focus on both horizontal and downward substitution: a specialised nurse takes over part of the care, usually given by a doctor, such as physical examinations and (limited) adaptation of medication. For this, the nurse followed a special training programme. Furthermore she gives, for example, education about coping with the disease and she co-ordinates care activities, like a case-manager. The care is given in the GP's practice. One out of these four projects (II) addresses COPD-patients, while the other three projects (III, IV and V) concern patients with type 2 diabetes mellitus, as in project I. In all five projects, content, method and procedures are described in a protocol of agreements and guidelines for treatment and task division,

written by the caregivers involved. The most important participating agencies are a general and academic hospital, two regional home care organisations and two regional GP associations. Concerning the professionals, 6 specialised nurses, 63 GPs, 10 internists-endocrinologists and 6 pulmonologists are involved as well as 559 patients. Compared to the characteristics of the broader number of projects we mentioned earlier, namely target groups (mainly diabetes patients), caregivers involved (e.g. hospitals, home care agencies, medical specialists, nurses, GPs), shared care activities (e.g. co-ordination and consultancy between caregivers) and organisational arrangements (such as multidisciplinary teams (e.g. protocol groups), protocols and a central role for the nurse), the five shared care projects are typical examples of what is going on in The Netherlands in this area.

For the construction of the event descriptions we made use of documentation study (e.g. protocols, minutes, annual reports), observation of meetings (e.g. policy groups and protocol groups) and 58 in-depth interviews (49 professionals and 9 persons with management or other organisational functions).

3.4 The role of structure, culture and power in change processes

The implementation of change, shared care in this case, is thoroughly affected by power, culture and structure. Below we will elaborate on this.

3.4.1 The role of power

According to the resource dependence theory (Pfeffer and Salancik, 1978) power, as the capacity to influence and steer people into a desired direction, only plays a role in case of (inter)dependency between actors. Crucial is that actors perceive themselves as (inter)dependent, which means that they see themselves in need of each other's resources in order to achieve their own goals. For this reason they have to establish relations to get hold of their resources. Power and power differences are intrinsic characteristics of dependence. Most powerful is the actor, whose resources are most needed by the other actors, while the latter do not have any alternative to attain such resources from.

In the experimental projects the GPs were in need of the specialists' knowledge to adequately treat the patients. Also, the GPs did not have any alternative to get this knowledge from. Thus, they considered the medical specialists more powerful. Initially, the GPs suspected that the medical specialists would abuse this power of knowledge, by taking over the GPs' responsibility in their own practice. This apparently was felt threatening for their own task domain, autonomy in their practice and control of their own affairs, which are crucial professional values (Freidson, 1970; Hasenfeld, 1992). It was clear that the GPs distrusted the aims of the medical specialists.

Event

When preparing shared care model I, discussion arose on the definition of responsibilities of the family doctor and the hospital-based medical specialist. The family doctors' representatives demanded a fat-printed statement in the protocol implying that, in shared care patient consultation and treatment, the family doctor would be the first responsible caregiver under all circumstances, as long as patients were treated in the GP's practice. Later on the family doctors appeared to be very satisfied about the shared care consultation, among others because the medical specialist left them their original responsibilities.

The initial distrust was replaced by trust, since the GPs perceived the medical specialists not to make use of their power. The latter did not take over the GPs' domain. Collaboration continued and was successful.

Implementation of collaborative arrangements also implies the creation and division of new key positions. Actors are eager to obtain such positions, since they provide access to power resources such as control of decision processes and control of knowledge and information, formal authority or control of scarce resources (Morgan, 1986). Thus, negotiations on key positions are a common feature of implementation processes.

Event

A choice had to be made about the employability of nurses within one project (case V). The project manager was confronted with a substantial divergence of views between the hospital and the home care agency. Elements like trust, knowledge and experience were at stake. Both parties wanted their nurses to be chosen as specialised nurses within the project. Several emotionally charged meetings took place in which several negotiation attempts were undertaken by the change management. Finally a compromise proposal was accepted. Two nurses from the hospital would be designated for the project under discussion while two nurses from the home care agency would be assigned to another forthcoming shared care project of which the project manager was also in charge.

Again, distrust was the driving force behind this event. Neither actor wanted the other party to possess the key position of the specialised nurse. A compromise was the only solution to continue.

3.4.2 The role of culture

One of the strongest variables, having impact on multidisciplinary teams or inter-agency collaboration is the professional and organisational culture (Stott and Walker, 1995). Culture is a set of values, guiding beliefs, understandings and ways of thinking that is shared by members of a profession or organisation and is taught to new members as correct. It represents the unwritten, feeling part of the organisation or profession. The purpose of culture is to provide members with a sense of organisational or professional identity and to generate commitment to beliefs and values that are larger than themselves (Daft, 1992).

Implementation of shared care is always automatically considered by the actors involved as an infringement of the own culture. There is fear of misunderstandings, violation of the organisational and professional routines and loss of the own identity, whereas the actors are often not familiar with each other's culture. Also, they always assume that the others' cultures substantially differ from theirs and that the others will impose their culture on the collaborative partners.

Event

During the development of common multidisciplinary protocols (cases II up to and including V), those family doctors who never met the specialised nurses before, showed a waiting attitude. They doubted whether the nurses would have the 'right' views on treatment or the 'right' expertise to adequately perform their new tasks. One of the family doctors observed: 'I want to know everything about what the nurse is doing, what she is advising the patients. For, if things go wrong, I am responsible.' Some of the nurses said that they expected some GPs to wait and see which way the wind blows. However, it appeared that the more doctors and nurses co-operated, the more their mutual confidence was growing. The nurses were more and more called in by the doctors on questions concerning patient treatment.

Such an initial lack of confidence can be noticed not only between members of different professions, but also between members of the same profession with a different organisational background.

Event

For years on end the hospital-based nurses, specialised in diabetes care (case III) were sceptical about comparing their expertise in diabetes treatment with the expertise of community nurses, specialised in diabetes care. Nevertheless, due to personnel problems in the outpatient clinic at a certain moment, by mediation of other project participants, admittance was achieved of a community nurse to work and acquire experience in the clinic as a hospital-based nurse, specialised in diabetes care. The community nurse followed an additional course in diabetes education. The daily collaboration and communication gradually set up a process of developing mutual understanding and shared values between the two types of nurses. As soon as the initiative was taken to start a new shared care project (case IV), this community nurse immediately became involved by the diabetes team. As a result she worked in this project as a nurse specialised in diabetes care, still being an employee of the home care agency in the region.

The event demonstrates that daily contacts and willingness to learn each other's 'language', to learn new knowledge and skills and to respect each other's views and expertise, establish a basis for mutual trust and confidence and for the creation of a common culture. This is always a step-by-step learning process, within which self-reflection, self-evaluation and openness play a major part.

Event

The policy group shared care diabetes (cases I and V) set up a regional evaluation meeting, dedicated to give feedback on the projects' progress to all participants. Information was given by the project management as well as by participating doctors and nurses. One of the family doctors said later on that he learned from this information. It convinced him that the shared consultancy sessions with the medical specialist promote quality of care for all diabetic patients. Consequently, he enlarged his patient target group for the shared consultation sessions from patients with specific problems to all his registered diabetic patients.

3.4.3 The role of structure

Structure, in terms of task division, co-ordination mechanisms, positions and grouping of positions (Mintzberg, 1983), plays a role in implementing shared care in two different ways.

First, a structure should be established as a tool to prepare and manage the implementation process. For the actors involved this structure is decisive for the extent they will have a say in the strategies of implementation. Thus, their position in the implementation structure is felt as an important basis of power. In our cases the creation of such a structure was being extensively negotiated, resulting in a compromise which might not be the most efficient structure.

Event

To develop shared care to chronically ill, one of the hospitals appointed a project manager who was put in charge of stimulating new initiatives. Half a year later he appointed a project co-ordinator, working with the Transmural and Diagnostic Centre University Hospital Maastricht (T&DC, which can be considered a support structure to the processes of developing shared care). Neither functionary possessed any hierarchical

competencies. Especially the project manager had to negotiate with potential participants. Family doctors and the home care agency demonstrated a waiting attitude. One of the issues for them was the matter of financial support and financial contribution, respectively. After one year of bargaining and informing, the project manager and the project co-ordinator recommended to start a small-scale project with downward and horizontal substitution of care for diabetic patients (case V) and a second project for COPD patients later on (case II). In order to get support from the parties involved, all were invited to join the project: the regional family doctors' association, the hospital (medical specialists, nurses and management) and affiliated clinical departments of the medical faculty, the home care agency as well as the local insurers, the provincial patient platform and the Co-ordination Centre on the Chronically Ill (Synchron). A guiding committee for advice was installed to support the development of a working structure for caregivers. The committee spent many hours to develop this structure and the procedures to be followed. Extensive negotiations were necessary, especially while the management of one of the partners did not feel committed. Later on a second guiding committee came into existence to advise on the evaluation research which would be executed by two university departments. Finally a joint policy group was established to settle policy matters.

The event demonstrates that the establishment of an appropriate implementation structure is time consuming, in that all participants have to be put on one line. It took about two years to come to agreement and willingness to support this structure. The participants' ideas on who is allowed to do what and who is responsible for what and who is allowed to control whom, appeared to substantially differ. All changes in task division, financial support and contributions etc. had to be negotiated. In the initial phase there was a lot of competition between the different partners. Several caregivers and the home care agency felt threatened in their autonomy or had insufficient confidence in the other participants' intentions. Besides, the participants had to learn how to cope with the dynamics of the innovative processes.

Second, the implementation process creates new structures of care giving, by creating different task divisions and new positions, e.g. the specialised nurse, who takes over certain tasks from the medical specialists. Consequently, new working routines, views, behaviour and communication patterns, in other words, a new culture, will emerge. Also, as is mentioned earlier, different power relations will be developed.

On the basis of our previous research, concerning the establishment of a large number of collaborative projects in different care sectors in The Netherlands (Raak van et al., 1993; Mur-Veeman et al., 1995), we conclude that the creation of a new structure is almost always the first issue that is carried out, because changing the structure seems to be more concrete and easy than directly changing culture or power. However, as is demonstrated in the cases, the development of new structures also indirectly changes cultures (Schein, 1985) and power relations.

3.5 Discussion

The above description around events demonstrates the role of power, culture and structure in the implementation of shared care in The Netherlands. One could say that the extended discussions, ending up in compromises, as well as the absence of hierarchical power ("nobody is the boss"), typically fits the Dutch culture of negotiating and seeking agreements between all parties involved (based on "everybody being equal"), as it is expressed in their famous "polder model". But there is more, that goes beyond the Dutch views, habits and attitudes. What really counts here, and this is from all times and places, is that the impact of

power, culture and structure on the development of shared care becomes manifest and should be explained in a context of inter-professional working and networks.

Inter-professional working in health care not only concerns the collaboration between members of different professions, such as doctors and nurses, but also between members of different subgroups within a profession, such as medical specialists and GPs or hospital nurses and community nurses. When the professions or the various groups of one profession have unequal power, there might be struggles over tasks or codes of ethics or training or other aspects of their role (Rothman, 1979), in other words over power, culture and structure. This is particularly the case, when changes in the professional division of labour is at stake. That is exactly what happens, when shared care is being implemented. That is why we see the professionals involved acting to defend or enhance their own interests and rewards. This interaction takes the form of deliberate bargaining, negotiations and accommodation or may involve subtle manipulation or overt social control. Here, the core professional values, such as service, commitment and calling, that are relying on professional altruism, come under pressure. This is very essential, whereas these values are even more than a matter of high moral character. It is a form of competence vital to a profession (Fox, 1989). The struggle between this vital competence and self-interests is characteristic for inter-professional working.

In principle, professionals really do have a lot of room to make their own choices in this struggle. For, they dispose of a considerable degree of autonomy, that they wield at work and that is carried out in their complex systems of formal and informal social controls through which they try to regulate their own individual behaviour (Fox, 1989). For doctors, as opposed to nurses, this professional autonomy can be all-encompassing, in that it comprises not only clinical autonomy, but also fiscal, practice and organisational autonomy (Light, 1995). As Mintzberg (1983) pointed out, professional autonomy is not only a high professional value, but it is also necessary to adequately perform the professional tasks. The reverse is that there is no external compulsion to subordinate the professional self-interests to professional altruism, when it is about collaboration with the aim to improve quality, patient-centredness and efficiency of care. On the contrary, doctors have the discretion to fight for their self-interests, when these are at stake. For, when losing their autonomy, they lose a lot. To take this step they must trust their partners and not feel threatened by them.

The lack of compelling forces on professionals towards collaboration is strengthened by the fact that the innovation process is carried out in a network-context. This network-context not only exists on the micro-level, in the form of inter-professional working, but also on the meso (organisational)-level, in that the professionals involved all have an organisational background: in this case the hospital, home-care organisation or GP-practice. Usually, organisational networks are a tough basket-work of defensive relationships, especially in the case of competitive interdependence. Interdependency and power relations belong to the most important theoretical themes in the world literature on networks (Oliver and Ebers, 1998). These themes explain the ambiguous role organisations play in networking: on the one hand, they need one another's resources to achieve their own goals (Pfeffer and Salancik, 1978) and on the other hand they always want to save their autonomy as much as possible. This is called institutionalised ambiguity (Mijs, 1989). It is the reason why organisations, when collaboration is inevitable, want to have a say in the structuring of the implementation process and the collaborative arrangements and do not want to give up their own culture, but rather want to impose their own culture to the other participants. On the other hand, they know perfectly well that the latter want to do the same. Thus, at least initially, there is no trust and confidence. The result is that the organisation members (i.e. both managers and professionals) are inclined to keep their commitment to the network as low as possible, namely on the level that is absolutely necessary for their own goal-achievement. Their views on what is necessary

may change over time. This explains why network-partners regularly change their strategies or fail to keep their agreements.

The above-described role of power, culture and structure in the context of inter-professional working within organisational networks diminishes the managerial possibilities to exert control, in order to steer the collaborative activities to the desired results. Where, then, could the starting-points for managerial steering be found?

3.6 Managerial steering actions

Inter-professional working within networks requires special managerial capacities, that go beyond the more straight-on, no-nonsense style of working in hierarchical-based organisations. Within networks, usually managerial steering capacity does not rely on formal positions, but rather on personal managerial capacities. Empathic abilities, patience and endurance are indispensable in addition to communicative skills and personal authority (Raak van et al., 1993), also because mutual trust, as the cornerstone of inter-professional and inter-organisational working in health care, should be stimulated.

The first thing for managers to do when working with professionals is to seek the optimal balance between the latter's altruism and self-interests. All caregivers will always agree with the prerogative of quality and patient-centredness. However, daily practice is different, because there is more. It makes no sense to deny the professional self-interests as an important incentive for action. Trust will be furthered, when managers speak openly on this and show that they accept and respect it. In addition, stressing their professional responsibilities for quality of care and their core professional competence, can help them see the relativity of their self-interests. Also, it takes time for them to learn to openly speak on this by themselves and the manager can help them by setting an example.

Second, it is necessary to be aware of the different components of autonomy. In different situations, different components can play a role. For professionals, often clinical autonomy and also practice autonomy is more important than organisational autonomy.

It might be sensible to separately work on changing the different components of autonomy or to respect one component and just try to change another.

Third, one should be aware that power and power struggles are quite normal in organisational life. Although this has not always been accepted -“power is not rational and thus illegitimate”- power and the use or abuse of power is just human, in that it is human to submit to self-interests at the expense of the interests of others or higher shared interests (Butcher and Clarke, 1999). The trick is to manage this as a balancing act between the two motives of professionals, i.e. altruism and self-interests, and between the two sides of the institutionalised ambiguity of organisations, i.e. the need of each other's resources, and the need to protect their own autonomy. This may be the most political task to be performed by the change management and others involved, but being a good politician is part of the job of a manager. Political behaviour can also imply a careful and reserved use of potential power, like the medical specialists did in the first event description, or elaborate and careful negotiations, taking all parties seriously, such as happened in the second event.

Fourth, it is very important to work on the establishment of a common culture as a basis for trust and commitment. Elements of a common culture not only are common goals, e.g. quality improvement or improving finance and respect for self-interests, but also common ways of working and assessment, even in the daily professional practice, as is demonstrated by the following event.

Event

Two nurses work as a specialised diabetes nurse in the project (case V). After working with the shared care model for some time, one nurse manages to observe her colleague during a number of her consultation hours with the patients in order to find out whether they both are performing their identical tasks and responsibilities in the same way.

This event can be considered a break-through of the clinical component of professional autonomy and therefore worth mentioning. It is still a step that usually has not been taken by doctors. To establish self-evaluation as a part of common culture, it is important not only to create a solid and continuous feedback system concerning procedures, interactions, problem-solving and results, but also to foster learning behaviour. In addition it should be considered normal to give support, e.g. by providing financial and personnel sources, like administrative assistance for network activities, and by offering the participating professionals extra training facilities. This happened in all five shared care projects we studied.

Event

In all five cases an administrative support structure was offered (secretary, organisational advice, accommodation etc.), especially by Synchron (a supporting office for care of the chronically ill), T&DC and the Office of Innovative Care. One of the participating family doctors observed in this respect: "I am convinced that our shared care project is going to fail, when this support disappears."

Event

On the initiative of the T&DC the COPD-nurses (case II) were involved in setting up a training programme and given the opportunity to follow this training in order to learn how to carry out lung-function checks.

Fifth, building structures is more than making an outline or drawing an organogram. The implementation of new structures results in changes of task domains, changes in power relations and compels cultural changes. When designing structures it is necessary to look at alternatives and to consider the pros and cons. Involving the participants in the structural development can help to get better insight into the consequences for the different parties and to make clear what they are talking about. It also fosters commitment and trust, as is demonstrated by the following event from our shared care projects.

Event

In all cases the selected network-structure was the adhocracy (Mintzberg, 1983), that fits advanced innovations. For developing the shared care arrangements an appeal was made to the expertise of different professional workers like doctors, nurses and dieticians. These professionals jointly decided on task descriptions, task divisions, communication patterns and mutual co-ordination. Decisions upon widely acceptable forms of horizontal and downward substitution were made after intensive discussions.

In developing new structures in health care networks, it is even undesirable to introduce innovations without using the operational workers' expertise. For, the professionals and organisations involved still have their high autonomy and will not hesitate to use it in order to safeguard their own interests. Without any commitment to the innovations to be implemented, the workers will block the innovation and no changes in task division will take place.

Finally, managers who are responsible for fostering shared care activities, should also be rational in addition to being empathic and emotional. They must deliberately plan their own goals, plan their change strategies and care for getting the right information at the right

time, e.g. by constantly mapping power, culture and structure as they develop during the implementation process. Examples of relevant questions are listed in Table 1.

Table 1 Mapping structure, culture and power: relevant questions

<i>Power</i>
<ul style="list-style-type: none"> - What are dominant interests of the parties involved? - How do the power dependency relationships look like? - What (dis)advantages are resulting from the intended changes? - What are the participants' power positions?
<i>Culture</i>
<ul style="list-style-type: none"> - What are dominant views and conceptions of the persons involved regarding tasks and task division? - What problems hinder collaboration and what (course of) change is preferred? - To what extent are the participants interested and motivated to change? - Is there any vision on goals to be achieved and on change methods? - What are the favourite learning styles of those involved? - How do participants cope with one another? - What (professional) norms and values are regulating the participants' behaviour? - Are there any subcultures? - To what extent are the changes looked upon as fundamental and contentious?
<i>Structure</i>
<ul style="list-style-type: none"> - What inter-organisational relations are already present and what are their functions? - How can these relations be characterised: strong or loosely coupled? - Does the innovation fit existing structures and to what extent? - Who are the parties involved? - In what larger structures are the participants embedded?

3.7 Conclusion

Structure, culture and power are broad concepts that are applicable in a variety of situations within different contexts. To really understand them and make them a starting-point for change management concerning the implementation of shared care, it is necessary to get insight into the underlying forces. We argued that the motives of professionals and the balancing forces within networks explain the interactions between the participants involved, the reasons for distrust, the necessity to establish trust and the time-consuming work of bringing the parties involved together. But we also demonstrated that these processes can be influenced and steered, by taking power, culture and structure as a starting-point for managerial actions and by constantly being aware of the way professions and networks colour the interactions, conflicts and solutions. Managing power and power relations may be the most difficult task to be performed by the change management. One important reason is that power is seldom openly being discussed. More often, it is the main part of the hidden agenda. Change managers have constantly to be alert to signs of power struggles and take this into account, when they are building structures or developing common cultures. For, structure and culture are firmly intertwined with power. For this, political awareness should be a mainstream managerial competency.

References

- Barnhoorn, H. and R. Walda (1992), *De Eerste Lijn op Spitzten: Zorgvernieuwing in de Praktijk (Tipping the Balance of Primary Care: Care Innovation in Practice)*. Assen/Maastricht: Van Gorcum.
- Butcher, D. and M. Clarke (1999), *Organisational Politics: the Missing Discipline of Management?*, in: *Industrial and Commercial Training*, vol.31, number 1.
- Daft, R. (1992), *Organization theory and Design*. St. Paul, Minnesota: West.
- Fisher, F. and J. Forester (1993), *The Argumentative Turn in Policy Analysis and Planning*. London: UCL Press.
- Freidson, E., *Profession of Medicine* (1970). New York: Dodd, Mead Co.
- Fox, R.C (1989), *The Sociology of Medicine: A Participant Observer's View*. Englewood Cliffs N.J.: Prentice Hall.
- Groot, R. de, A.P.M. Ketelaars and H. Maaskant (1999), *Innovatie in de Zorgsector. Jaarboek 1999 (Registration of Care Innovation Projects)*. Maarssen: Elsevier/De Tijdstroom.
- Hardy, B., I. Mur-Veeman, M. Steenbergen and G. Wistow (1999), *Inter-agency Services in England and the Netherlands. A Comparative Study of Integrated Care Development and Delivery*, in: *Health Policy* 48, p. 87-105.
- Hasenfeld, Y. (ed.) (1992), *Human Services as Complex Organizations*. Newbury Park etc.: Sage Publications.
- Light, D., *Countervailing Powers. A Framework for Professions in Transition*, in: T. Johnson, G. Larkin and M. Saks (1995), *Health Professions and the State in Europe*. London: Routledge.
- Mijs, A.A. (1989), "Ontstaan en levensvatbaarheid van interorganisationele verbanden" (Rise and Viability of Interorganisational Networks), in: *Sociologische Gids*, nr. 1, pp 48-61.
- Mintzberg, H. (1983), *Structure in Fives. Designing Effective Organizations*. Englewood Cliffs N.J., Prentice Hall.
- Morgan, G. (1986), *Images of Organization*. Beverly Hills, California: Sage.
- Mur-Veeman, I., A. van Raak and G. Jongerius-de Gier (1995), *Samen Gaan om Sterk te Staan (Joining Hands to Achieve a Strong Position. Cooperation in the Field of Care Provision to Persons with Learning Disabilities)*. Maastricht: University Press.
- Persoon, A., A. Francke, D. Temmink and A. Kerskstra (1996), *Transmurale Zorg in Nederland: een Inventarisatie op Basis van Bestaande Gegevensbestanden (Care over the Walls: an Inventory of (shared care) Projects in the Netherlands)*.
- Oliver, A.L. and M. Ebers, *Networking Network Studies: An Analysis of Conceptual Configurations in the Study of Inter-organizational Relationships* (1998), in: *Organization Studies*, 19/4, p. 549-483.
- Pfeffer, J. and G.R. Salancik (1978), *The External Control of Organisations: A Resource Dependence Perspective*. New York: Harper and Row.
- Raak, A. van (1993), Jongerius-de Gier, J. Massop and I. Mur-Veeman, *Brug tussen Gisteren en Morgen. Evaluatie Programma Zorgvernieuwingprojecten Thuiszorg van WVC (Bridge between Yesterday and Tomorrow. Health Care Innovation as a Strategy for Better Care)*.
- Evaluation of the 'Programme Health Care Innovation Projects of the Ministry of Health'. Maastricht: University Press.

- Rothman, R.A., Occupational Roles: Power and Negotiation in the Division of Labor (1979), in: The Sociological Quarterly, 20, p. 495-515.
- Schein, E.H. (1985), Organizational Culture and Leadership: A Dynamic View. San Francisco: Jossey-Bass.
- Spreeuwenberg, C. (1994), (Net)werken voor chronisch zieken. ((Net)working for the Chronically Ill). Inaugural speech. Maastricht University.
- Stott, K. and A. Walker. Teams. Teamwork and Teambuilding (1995). New York etc.: Prentice Hall.
- Wijnen, G., W. Renes and P. Storm (1991), Projectmatig Werken (Implementing Projects).Utrecht: Het Spectrum.

Chapter 4

**From shared care to disease management:
key-influencing factors**

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4.1 Abstract

Background

In order to improve the quality of care of chronically ill patients the traditional boundaries between primary and secondary care are questioned. To demolish these boundaries so-called 'shared care' projects have been initiated in which different ways of substitution of care are applied. When these projects end, disease management may offer a solution to expand the achieved co-operation between primary and secondary care.

Objective

Answering the question: What key factors influence the development and implementation of shared care projects from a management perspective and how are they linked?

Theory

The theoretical framework is based on the concept of the learning organisation.

Design

Reference point is a multiple case study that finally becomes a single case study. Data are collected by means of triangulation. The studied cases concern two interrelated Dutch shared care projects for type 2 diabetic patients, that in the end proceed as one disease management project.

Results

In these cases the predominant key-influencing factors appear to be the project management, commitment and local context respectively. The factor project management directly links the latter two, albeit managing both appear prerequisites to its success. In practice this implies managing the factors' interdependency by the application of change strategies and tactics in a committed and skilful way.

Conclusion

Project management, as the most important and active key factor, is advised to cope with the interrelationships of the influencing factors in a gradually more fundamental way by using strategies and tactics that enable learning processes. Then small-scale shared care projects may change into a disease management network at a large scale, which may yield the future blueprint to proceed.

Keywords: shared care, disease management, diabetes care, change management, project management, learning organisation

4.2 Introduction

In the last ten years Dutch care providers have become interested in so-called 'shared care' for chronically ill patients. While the traditional scope of generalists and specialists has been primary care and secondary care respectively, their boundaries appear to constrain the patients' need of continuity of care to an increasing extent. This impedes the outcome of the professionals' efforts to attain good care delivery. However, self-interest is not the only drive.

In addition care providers have been motivated by several white papers about chronically ill [1, 2]. These papers mainly emphasise two reasons: quality assurance and efficiency. Clinical care, co-operation between providers, organisation and continuity of care, the attitude of providers and patient orientation in care delivery, need to be improved. Also

the growing number of chronically ill patients is requiring the Dutch government to find a balance between improvement of care and costs. Their white papers suggest that co-operation and substitution of care can be an effective way to deal with this issue. These drives and undoubtedly their interaction have yielded a lot of 'shared care' projects. *Shared care* is defined as the care in which generalists and specialists work together on the basis of agreements about co-operation, responsibilities and management [3]. Traditional care, especially for chronically ill, is no longer applicable. Special projects entailing light forms of small-scale networks were considered an effective way to organise shared care [4]. In a number of these projects a sort of substitution of care has been applied. *Substitution of care* can be established as a horizontal substitution -the transfer of care from the hospital to primary care-, and as a vertical substitution -transition of care from a higher to a lower qualified provider, often from a doctor to a specialised nurse- [5]. In particular specialised nurses have been introduced, initially with special tasks like education and advice, and later on as professionals with specific medical tasks and skills additional to their traditional nursing tasks. The idea is that they may play a central role in co-ordinating long-term care, executing medical routine tasks and are better skilled than doctors to educate and support patients and to promote compliance.

The white papers also suggest that the tension between quality and costs may be further alleviated when usual shared care crystallises further as disease management. *Disease management* entails a special form of shared care. This type of management is characterised by the focus on one disease, client orientation and a broad scope of activities like prevention, diagnostics, treatment, counselling and rehabilitation [6]. These aspects are often less explicit in common shared care, which is the most predominantly applied form so far in the Netherlands. Disease management is more robust than shared care, has greater impact and is applied on a larger scale.

While development and implementation -experimental application of the developed concept- are often linked to usual shared care, dissemination -further application of the developed concept, possibly adapted on the basis of the experimental application, on a larger scale or elsewhere- requires more co-ordination, more structure and thus a heavier role of the management. Other aspects of disease management are quality assurance, transparency, benchmarking, feedback to caregivers and authorities and the use of information and communication systems.

In the United States disease management occasionally applies to traditional health care providers [7, 8]. These providers can adopt the principles and practices while not giving up their independence or join public-private ventures [9, 10].

From experiences with both small and large scale projects about shared care it has become obvious that failure of achievement of the strived for results is no exception. The accompanying change processes appear to be peppered with impediments and rather difficult to manage, due to divergent interests of a lot of stakeholders. Although the impact of the management factor is manifest, its influence has to be recognised and dealt with. Thereupon, different viewpoints can be considered like the perspective of the involved care providers or patients. However, to get a better grip on the key inhibiting factors and the pointed out lack of success, we want to stress the role of the management in this article. Therefore we address the question: *What key factors influence the development and implementation of shared care projects from a management perspective, and how are they linked?* To answer this question we rely on the data of two related Dutch case studies, in which the concepts of shared care, substitution of care and disease management play a role. Below we will first address these case studies. Next the methodology and theoretical concepts are clarified, including the applied framework that originates from results of former innovation projects. After presentation of results as event descriptions and the analyses thereof, recommendations follow

on behalf of successful project management on the line from common shared care to disease management.

4.3 Case studies

The two shared care projects were initiated in 1994 in the Maastricht-region and aimed at improving the quality of diabetes care without increasing costs, by introducing substitution according to regionally agreed protocols.

The first *project (A)* involved the deployment of specialised diabetes nurses to take over the routine medical tasks of internists (vertical substitution) and to perform traditional nursing tasks during three-monthly patient consultations in the general practitioners' offices. The latter implied a transfer within the medical discipline from the internist in secondary care to the general practitioner in primary care (horizontal substitution). The specialised nurse acted as a co-ordinator of diabetes care for the target population containing type 2 diabetic patients being treated by the internist at the outpatient clinic, who labelled them as medically stable. This nurse became the patients' focal point. In the case of an emergency outside working hours the patients could consult the general practitioner, which ultimately remained the person responsible for the care of these patients. Once a year they visited the internist at the outpatient clinic for a medical check-up. In total 74 patients, 22 general practitioners and 7 internists-endocrinologists participated in this project.



The second *project (B)* comprised the shared consultation by internists and general practitioners in primary care (horizontal substitution). The focus was on the recurrent

education of general practitioners and the prevention of unjustified referrals. Periodically shared consultation hours were conducted in the general practitioner's office. During these consultation hours an internist and a general practitioner saw patients with type 2 diabetes mellitus together. The latter person remained responsible for the care of these patients. In total 250 patients, 25 general practitioners and 5 internists participated in this project.

Model project B



At the end of 1999 all participants agreed upon the *integration of projects A and B in one disease management project*. Since 2000 this integrated project was carried out in the Maastricht-region. Currently the disease management project strived to attain the participation of 50 general practitioners and 3000 diabetic patients. This project mainly entailed:

Aim:

- effective, efficient, structured and integrated care for all patients with diabetes mellitus of the involved general practitioners

Methods:

- use of a regionally agreed multidisciplinary protocol for diagnosis and treatment
- common responsibility for the treatment and counselling by a team consisting of an internist-endocrinologist, specialised nurse and general practitioner [11]
- explicit allocation of patients to the internist, specialised nurse or general practitioner depending on the severity of the diabetes and its associated complications
- for those allocated to the specialised nurse: this nurse as co-ordinator responsible for cure and care on patient level

Organisation:

- separation of policy and content
- policy-team consisting of all involved parties including the local patient organisation
- protocols developed by caregivers and agreed by the policy-team
- central co-ordination by the project management
- formal contracting between involved parties in respect of general and financial responsibilities
- shared consultancy of internist and general practitioner as a prerequisite for participation

Involvement of clients:

- feedback from patients by questionnaires, focus groups and patient panels

Benchmarking and feedback:

- annual reports at practice level of results by the policy-team to authorities including the local health insurer

Information and communication technology:

- exchange of information by providers with application of electronic computer technology

Consultation and education:

- opportunity for the general practitioner to consult the internist or specialised nurse
- recurrent education of all care providers.



A general practitioner and an internist were responsible for the projects A and B respectively. In practice this implied that each project followed its own routine. However, to improve co-operation between both projects and to settle policy matters, additionally a small common policy-group was installed that comprised the project managers and other key stakeholders. These stakeholders were a member of the regional association of general practitioners in the Maastricht-region -speaking as a private person-, a representative of both the University Hospital Maastricht, the 'Green Cross' home care agency in the Maastricht-region, the Co-ordination Centre for the Chronically Ill Limburg, Synchron, and the Diagnostic Co-ordinating Centre University Hospital Maastricht. After the merger into one disease management project the two project managers bore the ultimate responsibility together.

Background information about both cases on rather formal lines is described in the Appendix for the period 1994 until 2000, supplemented by information about the project structure during this period (Fig. 1 and 2).

4.4 Methodology and theoretical concepts

The case study method by Yin [12] was applied, i.e. an initially multiple case study design altered into an embedded single case and finally changed into a single case design, or more concrete: the separate projects A and B got intertwined and became a disease management project. The intended course of action of two cases was enforced to alter into one embedded case, which actually contained two gradually interrelated cases and ended up in one case.

Data were gathered periodically by means of triangulation. Data triangulation implies the collection of information from multiple data sources to corroborate the same facts or phenomena. Data sources included the use of in-depth interviews with participants, written questionnaires sent to several involved care providers, observations of project meetings, and documents next to reports [12].

Inherent to the case study method is the application of a general and a specific strategy to analyse the case(s) [12]. In this study the *general analytic strategy* involved a framework for organising data, in which elements of the theoretical concept of the learning organisation are embedded (Fig. 3).

The framework implies *an adapted model of critical influencing factors* [13], originally developed on the basis of gathered empirical evidence by the evaluation of innovation projects in the early nineties [4]. While the original model mainly focuses on the influencing factors as such, the adapted model also makes explicit their interrelationships. The influencing factors can be either external or internal. Both can have a promoting and inhibiting impact.

The *external* factors are factors outside the environment of the project activities. They entail the *role of authorities* -like the government and *health insurers*-, *legislation* and *societal developments*.

Internal factors are factors that determine change processes within the project activities. Encompassed is a factor involving the *local context* -including *culture*, *power* and *structure*-, as well as factors about *commitment* and *change management*. The latter concerns goal-oriented steering of change processes by the management of the innovative (project) activities, mainly the *project management*. The steering entails the application of change strategies and tactics.

In respect to the interrelationships between the factors the adapted model considers that stakeholders learn from experience. Therefore the concept of a *learning organisation* is taken as a reference point. The concept implies the promotion of learning processes on individual and organisational or system level, in which experimenting, observing, coping and learning

from mistakes are accepted and encouraged [13, 14]. These learning processes need to attain at least the level of so-called *double loop learning* [13, 15, 16, and 17]. This means getting new insights from experiences, which imply calling into question and possibly redefining the rules about 'right' and 'wrong' that have been adhered to, or 'doing the right things' [13]. Double loop learning can change fundamental assumptions about the organisation. The consequence may be redefining the organisation's goals, norms, policies, procedures, or structures. This kind of radical learning "calls into question the nature of the course plotted and the feedback loops to maintain that course" [17]. According to Argyris [15], double loop learning is manifest "when mismatches are corrected by first examining and altering the governing variables and then the actions". These variables are the ones that drive and guide such actions and can be deduced by observation. On the one hand this type of learning can be distinguished from the basic level, termed single loop learning, which actually occurs when a match is created between the organisation's design for action and the outcome, or when a mismatch is detected and corrected by alteration of the action. On the other it underlies "the ability of organisations to learn about the contexts of their learning" [17], labelled meta-learning, meaning when and how they (do not) learn and adapt accordingly [13, 17].

The learning component is depicted as a number of curved lines, which connect the discerned key-influencing factors (Fig. 3). It is supposed that the external factors influence the internal factors top-down in a one-way direction. The link between the internal factors, i.e. local context, commitment and change management, may take the shape of a *learning cycle*, triggered off by a *learning impulse* from the local context. This comprises a *learning loop* from the factor local context to the factor commitment, change management and local context respectively. However this can cause the same learning loop backwards, by which the learning cycle is completed. Altogether, the internal factors are considered of decisive importance.

An attempt has been undertaken to approach the dynamic complexity of reality more closely [13]. It was expected that the findings of the case studies A and B would confirm the adapted model.

In addition to the general strategy the *specific analytic strategy* of explanation building was partially used [12]. The strategy of explanation building entails the gradual building of an explanation of the studied phenomenon, implying the stipulation of a set of causal links. In the case studies A and B this entails the key-influencing factors and their links as shown (Fig. 3). The result is a cross-case analysis, next to an analysis of each (embedded) case. These analyses mostly occur in narrative form [12]. In this paper, *event descriptions* were used. They allow studying interactions during a sequence of events or one event [18, 19]. On that account at first a brief case history of both cases was described on the basis of the gathered data sources (Appendix 1). Then the events were carefully selected and analysed. In our view this is an indispensable point of departure for further systematic data analyses to be conducted.

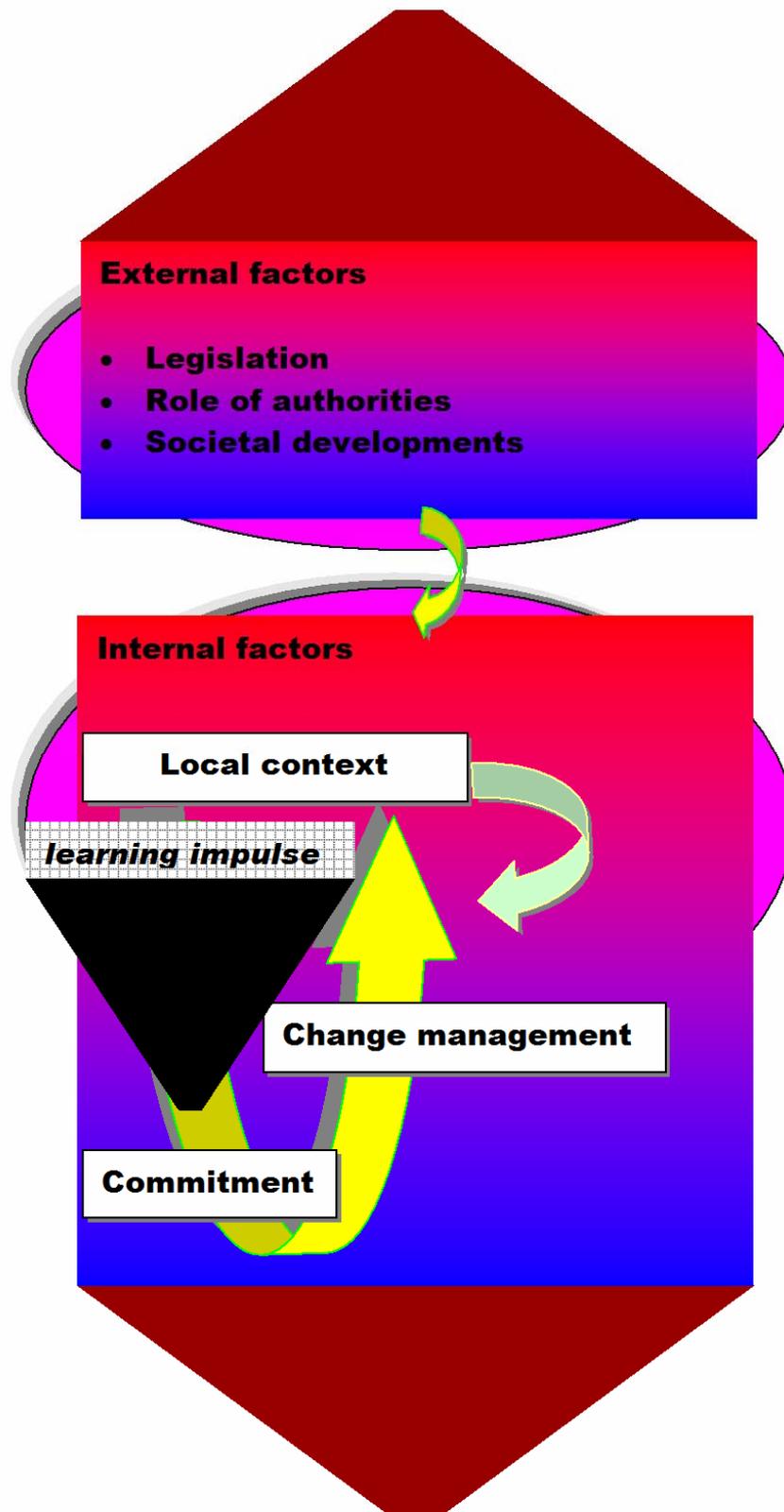


Fig. 1 Adapted model of critical influencing factors in shared care projects

4.5 Results

4.5.1 Data sources

In-depth interviews were carried out with several persons, from one up to four times (Table 1).

Table 1 Respondents in-depth interviews projects A and B

<i>Respondents</i>	<i>Total</i>
<i>Care providers</i>	
• Specialised diabetes nurses	2
• General practitioners	37
• Internists	7
• Dieticians	3
<i>Staff</i>	
• Staffnurse home care agency	1
<i>Committee</i>	
• Chairman regional association of general practitioners	1
<i>Management</i>	
• Top managers hospital	2
• Top manager home care agency	1
• Advisor local insurer	1
• Project managers	2
• Project co-ordinator	1
<i>Total</i>	58

Questionnaires (28) were filled in once by the two specialised diabetes nurses (response 100%) of project A, besides 21 general practitioners (response 84%) and 5 internists (response 100%) of project B. In addition observation was performed of formal meetings of different groups of projects A and B. Furthermore, documents and reports of participating organisations and project management were gathered, like protocols, minutes, (news) letters, brochures, policy pieces, despatches and annual reports.

4.5.2 Event descriptions

The event descriptions that derived from the cases' history (Appendix 1), are presented below. Following each description the enclosed key-influencing factors and their linkage will be analysed. Afterwards the findings will be summarised.

Event description 1: 'get started together'

To participate in projects A and B the regional association of general practitioners claimed that only if these projects were presented to the outer world as one package would they co-operate and give their support. The other participants accepted this demonstration of power (local context) because co-operation of the general practitioners was vital (commitment). Moreover this policy was maintained throughout the course of the projects. Subsequently the policy-group in charge of both projects (project management) set up a protocol group to develop the necessary protocols for both projects. Although several providers questioned this joint enterprise they did not withdraw. With a substantial helping hand by the project management the protocols

were developed and agreed upon within the pre-set term of several months. However, the consequence of working under considerable pressure of time was that not all participants, among which general practitioners felt equally involved (commitment). Therefore the policy-group (project management) initiated a second post-graduate course for general practitioners in the particular region in which the projects and new developments were further amplified and the internist, general practitioner, specialised nurse, staff nurse and dietician played a role. Once again the course met substantial appreciation. Thereby an extra impulse was given to alter the traditional culture (local context), that performing medical tasks was only the domain of doctors. Subsequently interest increased. The number of general practitioners that finally signed up for the projects was beyond expectation but not equally divided (commitment). Encouraged by the policy-group (project management) the general practitioners' regional association achieved a more balanced grade of participation by mediation (commitment). Consequently especially the attitude of providing organisations and providers changed vice versa (local context).

Key factors

Although the factor commitment seemed considerably influenced by the factor local context, i.e. power and culture, straight changes were directed by the project management. This management interpreted every circumstance and relevant alteration within and decided what change strategies and tactics needed to be carried out to bring about the required changes. By the consequent actions, commitment also influenced the local context. Therefore the description supported the argument that the project management was the most powerful active influencing factor in the development of projects A and B. Yet the outset of the projects seemed to be conditioned by the local context and commitment, while the latter prevailed.

Linkage

In the narrative two learning loops can be perceived between the internal factors. Both start and come to an end at the local context as depicted in the adapted model (Fig. 3). In addition, either one is also expanded with a backward in-between loop from the project management to commitment. Finally, when the so-called 'temptation' strategies and the tactics of the project management yielded a balance in commitment and a necessary change in power and culture (local context), the start of the project became feasible. The strategy, implying the short-term aim to get started, appeared to be related to the choice of the tactics. For both projects A and B these entailed going around together, settling a joint protocol group for protocol development, organising a second post-graduate course for general practitioners and other disciplines, next to mediation. This seems to imply that the basic linkage of the influencing internal factors in the adapted model (Fig. 3) is confirmed, and that the driving force of the project management induced the linkage. Application of a change strategy and related tactics appeared to be one reason. The way these were carried out another. The narrative indicates that the project management possessed skills to steer towards the intended outcome. The acquired level of learning tends towards double loop learning. The prerequisites to get started with the shared care projects were understood by the project management, which required rethinking the used tactics and changing policy accordingly.

Event description 2: 'project managers forced to work together'

Initially the news of the existence of project B surprised the project management of project A. The policy-group (project management) of these projects was set up once this management considered project B as competitive and acted accordingly. The reason was that both looked for participation of general practitioners in the same region and the design of project B was familiar to general practitioners, while the design of project A

was rather unfamiliar to them. The policy-group asked the project managers to pay attention to their interrelationship. All involved persons got to know each other better and the management of project A recognised and appraised the support of the management of project B. Finally the shared insight that both needed each other to continue, yielded discussion about integration of both projects into a disease management project. In mutual co-operation they launched its development during meetings with potential participants (commitment). This implied coping once more with the traditional domain of tasks reserved to doctors (culture and structure) and the power of various players in the field like physicians and the local insurer (power).

Key factors

The pressure of the general practitioners to merge the projects A and B (event description 1) urged the management of projects A and B to co-operate. The account showed that the project managers became rather preoccupied with settling their interrelationship during the projects' development and implementation. Only after mutual commitment was firmly established, they succeeded in focusing on the necessary conditions for the disease management project. The project management was obliged to co-operate and stick together to bring about the necessary changes in commitment and local context to enable the merger. Again commitment turned out to be an absolute precondition to move ahead. However, also the local context kept drawing attention.

Linkage

The description reveals a backward in-between learning loop from the change management to commitment and the local context (Fig. 3). The factors seem to got linked because of a change in strategy of the project management. The short-term aim 'get started' followed by 'make progress', gradually altered in the long-term aim 'continue in the long run'. Analogously the applied tactics changed from competitive behaviour, to appraisal and finally co-operation. Although this sequence especially appealed to the project management of project A, not until all persons involved in the project management of both projects applied tactics towards mutual co-operation, could the merger be properly addressed. This brought along organising meetings to create support by the broad network of potential participants (commitment) and rearrangements in the local context. The attainment of a reversal in policy from competition to co-operation and eventually integration, can be classified as double loop learning. Acquisition of the understanding that both projects could not survive without each other and afterwards proactively propagating the merger of the two, otherwise appears out of the question.

Event description 3: 'project managers and providers disagree in the meaning they attribute to key factors'

Episode 1. Within project A the facility to keep professional knowledge and expertise of the specialised nurses up-to-date was not arranged for (local context). Taking care of appropriate training of these professionals and other involved providers was considered important [20, 21]. The issue was raised repeatedly by the specialised nurses and discussed (commitment). The management responded that their knowledge and expertise met the task requirements in respect to patients included in the project and took no action (project management).

Episode 2. About a year later general practitioners were referring patients to the nurses not belonging to the target population to an increasing extent (local context). Then the issue of professional knowledge and expertise was again brought forward by them and discussed followed by management plans to monitor the nurses for this additional group of patients by internists-endocrinologists from the outpatients' clinic (project management). However, the priority of the specialised nurses to take additional courses

about co-morbidity to further increase their task performance (commitment), was appraised differently by the project management. The management told them that such courses were not yet available and the budget of the project left no financial room (project management).

Episode 3. In the final phase of the project, when it became apparent that projects A and B would merge into one disease management project with all diabetic patients as target population, the project management revealed that the extension with the group of patients in the general practitioners' offices was expected and borne in mind from the beginning although the request of the general practitioners to enable this possibility was posed (a lot) sooner. Because of research purposes too many changes were intentionally avoided, especially in the first year of the project. From the second year on this possibility was planned for and agreed upon. The problem was that the nurses got caught up somewhat in the middle between the aim of the project and the goals of the general practitioners. It was considered quite obvious that further training was necessary in accordance with the ambition of the specialised diabetes nurses and training for newcomers to the business. This training ought to be developed for which the initiative thereupon was taken. However the linkage between the question of the nurses for further education and the pressure to treat patients not included in project A was not looked at as a matter-of-course (project management).

Key factors

The project management dominated the scene and its change. Apparently, in spite of the efforts of the specialised diabetes nurses, the importance of the local context and commitment was recognised and acted upon by the project management according to a long-term strategy.

Linkage

The account shows a complete learning loop from and to the factor local context, as well as a partial backward learning loop from the local context to the factor commitment. Next an in-between loop from commitment to the change management can be noticed (Fig. 3). During the first two episodes the nurses linked the lack of an appropriate training facility (structure) with their need of further education on co-morbidity in particular (commitment). Probably their experiences with the group of patients outside project A boosted this need, which they wanted to fulfil instantly to better live up to expectations. They try to put the project management under pressure. In the second episode the project management partly met the nurses' request but stuck to the project's protocol, the required expertise for the target group, and the available financial means. Carrying out the agreed upon protocol was and remained their main task. This may be called a practical solution valid for the short-term. In the third episode it became clear that the target group would be enlarged on behalf of the disease management project, which outcome did the project management plan for. Next the followed strategy and tactic of the 'hidden agenda' were made explicit. At that time a fundamental solution was worked out for the education problem of the specialised diabetes nurses from a long-term perspective. This implied training considering all aspects of the position of the specialised diabetes nurse. The chosen solution tends to underpin the assumption of double loop learning by the project management, except for apparently confining the conversation with the nurses to discussion.

Event description 4: ‘ project management versus providers and patients: when do we discuss dialogue’

The management of projects A and B often tried to solve barriers by organising meetings in which discussion took place but scarcely dialogue (project management). Although at first this was taken for granted, gradually it turned out that this was not the favoured policy by a number of providers and patient representatives. In particular in the final phase of the project more dialogue was evoked by the participants, implying group conversations enabling the discovery of insights that might not be attainable by its members thinking on their own (commitment). By degrees the management put more emphasis on developing collaborative interdependent relationships within teams, in which the application of dialogue was a precondition (project management) [14].

Key factors

Providers and patient representatives gradually questioned the usual practice of the project management to discuss matters. When the shared care projects headed towards one disease management project they provoked more dialogue. The project management recognised this practice and its impact on the future commitment. Consequently the tactic was changed towards working as a team in which dialogue happened to be common.

Linkage

The narrative reveals an in-between loop from the project management to commitment and vice versa. The different views of the project management and the participants slowly converged. This was possible because the project management learned from the mistake to side-step dialogue too much during formal meetings, which implied unlearning this previously established way of communication. The awareness of the project management grew that in order to sustain commitment in the long run, building in team elements were necessary. The result indicates double loop learning with regard to the participants as well as the project management.

Event description 5: ‘health insurers support disease management’

The Association of Dutch Health Insurers published a brochure according to which they considered disease management as an opportunity to get control of the management of providers in healthcare [22] (role of insurers). This external factor was judged by the project management to give an impulse to changing the power relationships in projects A and B (local context), meaning also a chance to gradually change the involvement of the local insurer from rather distant to involved (commitment). Therefore the project management started negotiating with the insurer about financial support to secure the dissemination phase, acting prudently and with authority. Also the top management of key stakeholders, like the hospital and home care agency, was approached likewise about the matter (project management). The outcome, to take shared and financial responsibility for this phase, enhanced support by all participants, including the patient organisation, to continue designing the most suitable integrative project on a large scale. This also entailed more central co-ordination, structure and obligations than in the shared care projects so far, and a computerised exchange of information by providers (commitment). Thereby also existing power relations changed in a more co-operative direction (local context).

Key factors

The project management took advantage of a favourable external circumstance related to the potential role of health insurers around disease management and anticipated what was coming. The long-term aim and consequent strategy to settle the necessary conditions for the dissemination phase seemed to be the guideline. These conditions belonged to the factors

local context and commitment. Finally the applied tactics and its skilful performance proved to be successful.

Linkage

The exemplification appears to entail evidence about the one-way link between the role of the insurers at national level and the regional insurer in the local context, thereby initiating a learning loop towards the change management and then backwards again to the local context (Fig. 3). In charge was the project management, who aimed at a fundamental solution for the issue of shared, also financial, responsibility. The focus was no longer on a short-term strategy. The project management demonstrates double loop learning in order to achieve the necessary strong shared responsibility by the participants (commitment) and advantageous power relationships (local context) for the next phase of projects A and B. Tactics such as using an external promoting factor, negotiation and involvement of the top management of key stakeholders, turned out to be effective. Supposedly this was also due to the personal communication skills of the project management and the attained insight of ‘doing the right things’ by key stakeholders.

Review

Looking back at the event descriptions at the level of analysis across cases and the level of each single (embedded) case, evidence is found for the adapted model (Fig. 3), the discerned key-influencing factors and the depicted linkage between them. The evidence especially regards the internal key factors change management, i.e. project management, commitment and local context, which is also their most likely order. The first factor seems responsible for actively linking the factors, while the latter two appear prerequisites for the project management to enable successful application of short-term and long-term strategies and tactics. However the extent of success of their application apparently also depends on double loop learning and noticeable intentions, charisma and skilful communication by the persons in charge. It is indicated that long-term strategies and tactics are the most effective, especially in case all participants attain the level of double loop learning. Furthermore the evidence shows the occurrence of backward in-between learning loops, mainly between the factors change management and commitment. Besides not in every circumstance the whole learning cycle is completed. Obviously the details of the adapted model depend on the particular circumstance. This implies that the applied framework is founded as a basic design, which needs to allow for abbreviations and partial extensions.

4.6 Discussion

The attempt to approach dynamic complexity of reality more closely by the aforementioned adapted model of influencing factors looks promising in case of shared care projects [13]. This is particularly noteworthy since the project management of projects A and B did not consider the application of the learning concept beforehand. Obviously learning processes have been lived through. Nevertheless the analysis of the event descriptions indicate that the dynamic nature of the learning component (Fig. 3) necessitates tailoring. This tailoring has been realised by the internal factor project management. In fact, the skilful use of change strategies and tactics and the intentions behind yielded success. Because of its importance, complex nature and moving force in linking the key-influencing factors, this factor needs special attention. On the basis of the analysis, several hints can be given to the persons in charge. These especially regard the situation of changing the projects’ target of usual shared care into further implementation as disease management:

Key factor commitment:

- enhance shared responsibility for the long-term aim of the project by committing the top management of the key stakeholders (event description 5)
- involve relevant care providers and keep them involved (event descriptions 1-3)
- involve relevant patient representatives and keep them involved (event descriptions 4-5), by encouraging and monitoring a patient-centred approach continuously
- focus on team building, which requires dialogue (event description 4)
- enhance structure by settling regular feedback mechanisms using information and communication technology (event description 5)
- create more obligatory arrangements (event description 5), that tolerate sanctions according to the ‘carrot and stick’ method, which implies that behaviour following the rules is ‘rewarded’ and breaking the agreements is ‘punished’ [23]

Key factor local context:

- cope with those aspects of structure -like protocols and professional training-, power relationships in the local network of stakeholders and culture -traditional task domains and task divisions, including professional routines-, which hinder progress (event descriptions 1, 2, 3, 5)

Key factor change management:

- reckon that shared responsibility by the top management of key stakeholders probably triggers off goal-oriented steering of change processes, which makes them a part of the change management (event description 5)
- quickly settle competitive relationships between persons who belong to the project management (event description 2)
- solve differing opinions about the meaning of influencing factors between managers, providers and patient representatives, and persons within (event descriptions 3 and 4)
- make sure that the project management attains at least the level of double loop learning (event descriptions 1-5)
- use especially change strategies linked to long-term goals with a variety of corresponding tactics (event descriptions 2-5), and make them explicit as soon as possible (event description 3)
- pay attention to personal communication skills, personal commitment and authority (event descriptions 1-5)

Linkage of key factors:

- work out fundamental solutions for hindering internal factors, in which the interplay of all key-influencing factors like depicted in the adapted model (Fig. 3) is addressed, considering this as a basic design which allows for abbreviations and partial extensions -such as in-between learning loops-, depending on the issue at stake (event descriptions 3 and 5)
- pro-actively take advantage of favourable external key-influencing factors, like a promoting role of health insurers, in directing a strived for change of scene within the internal key factors (event description 5)
- reckon that iteration and revision are common (event descriptions 1-5)
- learn from mistakes (event description 3)
- promote double loop learning by all participants (event descriptions 4 and 5)

- deal with the question how to become a learning organisation, which not only guarantees individual learning (event descriptions 1-5), but also organisational or collective learning (event descriptions 4 and 5).

Further confirmation for these hints can be found [4, 13, 14, 17, 24, 25, 26, 27, 28, 29, 30, and 31].

However, to keep up with a rate of change that leads to a dynamic equilibrium [32], is rather difficult. Therefore we plead for further investigation of the complexity of reality, in which continuous change has to be coped with, on the basis of the presented model (Fig. 3). In our view this effort should not only take the management perspective as a reference point, but also the view of care providers and patients. Moreover application of the concept of the learning organisation linked to the factor change management in full, demands study in-depth. Finally researchers have to face the fact that the complexity of change processes within projects may imply, that the chosen case study design beforehand cannot be dealt with as a straitjacket.

4.7 Conclusion

The event descriptions of our case studies have made it possible to look upon the key-influencing factors of the development and implementation of shared care projects, and their linkage, from a management perspective.

The accounts demonstrated change processes involved in starting and implementing shared care projects at a small scale, that afterwards turn into one disease management project at a large scale. These change processes were dominated by the promoting and inhibiting influence of the key factors project management, commitment and local context, and their linkage (Fig. 3). Mainly the project management appeared to be largely responsible for this linkage. The successful outcome of the processes in the end was particularly due to the adequate and active use of change strategies and tactics. While at first short-term solutions seemed to be sufficient to solve problems, the more progress was made towards disease management, the more the circumstances urged the project management for long-term strategies and accompanying tactics. The factors commitment and local context, which acted as prerequisites, required an analogue change. This consecutively meant increasingly firmer, more obligatory commitments and gradually more solid changes in the local context.

In general this implies that the project management can be considered as the most important key-influencing factor in change processes of shared care activities. In our opinion the hints given on the basis of the analysis of the event descriptions should be applied widely. We stress that all key factors and their interrelationships need to exhibit a dimension of growing obligatory intensity. To achieve this, project managers are recommended to position learning as a core characteristic of the project organisation and to fully exploit the key factor change management. Active, stringent shared responsibility by all participants in a disease management network, triggered by strategies and tactics towards fundamental change, may be the new imperative to succeed. This will further challenge the personal commitment and communication skills of the persons in charge. Along these lines the end goal of a blueprint 'shared care for chronically ill' to balance out quality and costs, as suggested by the white papers [1, 2] we started with, may come available.

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References

- [1] Ministry of Welfare, Health and Culture. Chronisch-ziekenbeleid. Chronische patiënten niet buiten spel (Policy on chronically ill. No offside for chronically ill patients). Sdu Publisher Plantijnstraat, 's Gravenhage, 1991.
- [2] Ministry of Welfare, Health and Culture-Committee Modernising Curative Care. Gedeelde zorg: betere zorg. Rapport van de Commissie modernisering curatieve zorg (Shared care: improved care. Report of the Committee modernising curative care). Sdu Publisher, 's Gravenhage, 1994.
- [3] National Council for Public Health, National Board for Hospital Facilities. Transmurale somatische zorg. Advies van de Nationale Raad voor de Volksgezondheid en het College voor ziekenhuisvoorzieningen (Integrated and continuing somatic care. Advice of the National Council for Public Health and the National board for hospital facilities). NRV, Zoetermeer, 1995.
- [4] Raak A van, Jongerius-de Gier G, Massop J, Mur-Veeman I. Brug tussen gisteren en morgen. Zorgvernieuwing als veranderingsstrategie voor een betere zorg in de toekomst. Evaluatie 'Programma Zorgvernieuwingprojecten Thuiszorg van WVC'. Eindrapportage (Bridge between yesterday and tomorrow. Innovative care as change strategy to achieve improved care in future. Evaluation 'Programme Innovative care projects on primary care by WVC'. Final report). Rijksuniversiteit Limburg, Maastricht, 1993.
- [5] Spreeuwenberg C. (Net)werken voor chronisch zieken ((Net)works for chronically ill). Rijksuniversiteit Limburg, Maastricht, 1994 (Inaugural lecture).
- [6] Spreeuwenberg C. 'Disease management': primaire taak van verzekeraars of van zorgverleners? ('Disease management': principal matter of insurers or providers?). TSG: Tijdschrift voor Gezondheidswetenschappen 1999; 77: 42-44
- [7] Bodenheimer T. The American Health Care System. Physicians and the Changing Medical Marketplace. New England Journal of Medicine 1999; 340: 584-588
- [8] Bodenheimer T. Disease Management – Promises and Pitfalls. British Medical Journal 1999; 340: 1201-1205
- [9] Richards T. Disease management in Europe. British Medical Journal 1998; 317: 426-427
- [10] Hunter DJ. Disease management: has it a future? British Medical Journal 2000; 320: 530
- [11] Wagner EH. The role of patient care teams in chronic disease management. British Medical Journal 2000; 320: 569-572
- [12] Yin RK. Case Study Research. Design and Methods. SAGE Publications, London, 1994 (2nd ed.).
- [13] Eijkelberg I, Mur-Veeman IM. Veranderingsprocessen in de transmurale zorg (Change processes in shared care). In: Spreeuwenberg C, Pop P, Beusmans GHMI, Winkens RAG, Zutphen H van. Handboek transmurale zorg (Reference book on integrated care). Elsevier gezondheidszorg, Maarssen, 2000.
- [14] Senge PM. The Fifth Discipline. The Art & Practice of the Learning Organization. Currency Doubleday, New York, 1990.
- [15] Argyris C. On Organizational Learning. Blackwell Publishers, Oxford, 1999 (2nd ed.).
- [16] Argyris C, Schön DA. Organizational Learning II. Theory, Method, and Practice. Addison-Wesley, Reading, MA, 1996.
- [17] Davies HTO, Nutley SM. Developing learning organisations in the new NHS. British Medical Journal 2000; 320: 998-1001

- [18] Lieverdink H. Collectieve besluiten, belangen en wetgeving. De totstandkoming van tarieven voor medisch specialisten in Nederland tussen 1986 en 1992 (Collective decisions, interests and legislation. The development of fees for medical specialists in the Netherlands between 1986 and 1992). Datawyse, Maastricht, 1999: 17-34 (Thesis).
- [19] Laumann EO, Knoke D. The organizational state. Social choice in national policy domains. The University of Wisconsin Press, Madison, 1987: 20.
- [20] Baksi AK. From past experiences to the promotion of current resources. *Patient Education and Counseling* 1995; 26: 235-238
- [21] Coles C. Educating the health care team. *Patient Education and Counseling* 1995; 26: 239-244
- [22] Association of Dutch Health Insurers. *Zorgverzekeraars en disease management (Insurers and disease management)*. ZN, Zeist, 1998.
- [23] Spreeuwenberg C, Eijkelberg I. Keuzen, knelpunten en dilemma's in de zorg (Options, bottlenecks and dilemmas in the care delivery). In: Bos GAM van den, Danner SA, Haan RJ de, Schadé E. *Chronisch zieken en gezondheidszorg (Chronically ill and health care)*. Elsevier gezondheidszorg, Maarssen, 2000.
- [24] Raak A van, Paulus A, Mur-Veeman I. Transmurale zorg organiseren: eerst weten, dan doen (Organising integrated care: knowing first, acting next). *ZM magazine* 1999; 2: 2-6
- [25] Spreeuwenberg C, Schrijvers AJP. Van project tot overdracht (From project to dissemination). In: Heuvel WJA van den, Jonkers-Kuiper LV, Mootz M, Spreeuwenberg C. *Interveniëren in de determinanten van gezondheid: over obstakels en leermomenten (Intervening in health care: about obstacles and learning moments)*. Van Gorcum, Assen, 1995.
- [26] Spreeuwenberg C, Eijkelberg I. Shared care models for chronically ill patients: the impact of private and public factors. In: European Healthcare Management Association. *Managing healthcare across public-private boundaries. Book of abstracts*. EHMA, Dublin, 1999.
- [27] Garside P. The learning organisation: a necessary setting for improving care? *Quality in Health Care* 1999; 8: 211
- [28] Martensen A, Dahlgard JJ. Strategy and planning for innovation management – supported by creative and learning organisations. *International Journal of Quality & Reliability Management* 1999; Vol. 16 No. 9: 878-891
- [29] Raak A van, Mur-Veeman I, Paulus A. Understanding the feasibility of integrated care: a rival viewpoint on the influence of actions and the institutional context. *International Journal of Health Planning and Management* 1999; 14: 235-248
- [30] Raak A van, Paulus A, Merode F van, Mur-Veeman I. Integrated care management: applying control theory to networks. *Journal of Management in Medicine* 1999; Vol. 13 No. 6: 390-404
- [31] Hunter DJ, Fairfield G. Managed care: Disease management. *British Medical Journal* 1997; 315: 50-53
- [32] Rogers EM. *Diffusion of innovations*. The Free Press, New York, 1995 (4th ed.).

Appendix

Diabetes projects A and B: case history and project structure

Year	History activities
1994	<p>The University Hospital Maastricht appointed a professor on integrated care for the chronically ill, who was located at the Diagnostic Co-ordinating Centre and organised meetings with persons working in the field of care delivery for the chronically ill, to list the problems in this area as well as ideas to improve this care. About half a year later his inaugural lecture on integration of primary and secondary medical care for chronically ill patients took place. Horizontal and vertical substitution was suggested, to enable tailored care for chronically ill patients. In congruence with the findings of his fieldwork and the position of the key players like the hospital, the regional association of general practitioners and the home care agency, he decided to prepare for a general project on care networks consisting of several interrelated projects, among which project A. Soon thereafter also a fellow research worker was employed. In the meanwhile the Co-ordination Centre for the Chronically Ill in the province of Limburg, Synchron, carried through an analysis of the bottlenecks in the care delivery to chronically ill patients in this province. For each discerned patient category a committee was installed, to work out projects to solve those bottlenecks. Following the diabetes committee, in which an internist-endocrinologist (hospital), a general practitioner (general practitioners' association), a staff nurse (home care agency), a researcher (university), a patient representative (diabetes union) and staff members (Synchron) participated, a plan was drawn up on behalf of the improvement of the care delivery to patients with diabetes mellitus type 2. This plan entailed a number of coherent projects, including the outline of project B.</p>
1995	<p>A fellow research worker conducted interviews with a number of chronically ill patients about bottlenecks in the continuity of care and ideas about their elimination in the Maastricht-region. Afterwards the professor and the fellow worker organised an invitational meeting about shared care to the chronically ill on behalf of the key persons working in this field. Next both wrote an article about starting a small-scale project within a network configuration, in which the specialised nurse would take over tasks from a physician, according to a multidisciplinary protocol. The preferred central co-ordination should be taken care of by a flexible, already operational organisation.</p> <p>Individual meetings with all participants of the invitational meeting were organised, to establish priorities and arrange promises about contributions. Then the professor agreed with the key players who should be involved in the development and implementation of project A in the Maastricht-region, and that the Diagnostic Co-ordinating Centre should carry out the central co-ordination task. The agreement was accompanied by the warrant that tuning of activities in respect to other similar projects in the field of chronically ill patients in the region would be taken care of. This also regarded activities of the Co-ordination Centre. In addition decisions were made about the necessary consultative bodies, including an advisory committee with representatives of relevant national organisations. The Co-ordination Centre would take the initiative to start a protocol group to develop the necessary protocol; the Diagnostic Co-ordinating Centre would arrange for a formal contract between the key stakeholders about the terms of co-operation agreed upon.</p> <p>A project and research proposal was rounded off and the professor acquired the necessary financial means from national umbrella organisations and regional stakeholders like the hospital, home care agency and the Co-ordination Centre. It was decided upon to start with project A for the benefit of diabetic patients. Finally the project management, e.g. the professor as project manager and the fellow worker after being appointed as project co-ordinator, became aware of the presence of project B</p>

by its description in the Co-ordination Centre's plan.

Since both Centres relied on the participation of the general practitioners in the same region, they decided to install a common policy-group to accomplish gearing of activities to one another and joint settling of policy matters. This policy-group consisted of key stakeholders next to the project management.

Preceding and during the development of project B the Co-ordination Centre focused on a project about training general practitioners to enhance their knowledge about the medical treatment of diabetes mellitus type 2 and multidisciplinary co-operation between care providers in primary and secondary care. In co-operation with the regional association of general practitioners in the Maastricht-region, the study group of training general practitioners in this region and the county general practitioners' union Limburg, the first acknowledged post-graduate course within this project was developed and carried out in the Maastricht-region. During the programme the ideas about both projects B (initiative Co-ordination Centre) and A (initiative Diagnostic Co-ordinating Centre), were presented as well as their preconditions. Agreements were reached about their development and participation herein by general practitioners.

Then the regional association of general practitioners requested to present both projects A and B to the outer world as one project of the hospital, the home care agency, the two Centres and this association together. Otherwise they would not join. The policy-group decided to meet this request and to periodically report to the diabetes committee of the Co-ordination Centre, that guided the Centre's diabetes' plan.

According to the prescribed procedure common in the region, the policy-group presented the combined plan of both projects to a regional steering group of integrated care. After consent of the initiative the regional association sent the combined project to the individual general practitioners and asked them to sign up for either project A or B.

1996

A project manager, i.e. internist-endocrinologist, was assigned for project B and the (diabetes committee of the) Co-ordination Centre reached an agreement about availability of personnel of the endocrinology section of the hospital on behalf of project B.

Project A organised a meeting to inform the participating general practitioners more in detail about its content.

Subsequently, on behalf of the policy-group, the Co-ordination Centre, in co-operation with the Diagnostic Centre, installed a protocol group to develop the necessary protocols, e.g. one for project A and one for project B. Apart from care providers also participation of the regional diabetes union was arranged for. For the execution of each protocol a subgroup was formed. Following the protocols' development the protocol group decided on its content, which after some adjustments by the policy-group, and approval by the medical ethical committee of the hospital, were published.

Then project A started the recruitment of patients at the outpatient clinic. Due to strong inclusion criteria the target population turned out to be very limited. After discussion the criteria were enlarged. However, the finally selected target population remained smaller than expected.

The home care agency and the hospital disagreed about the recruitment of the specialised diabetes nurses on behalf of project A. Both organisations wanted their nurses to be employed. Finally two nurses were employed by the hospital and another arrangement regarding the other interrelated projects was made to accommodate the home care agency.

On account of project B it was arranged for that several internists would visit once a week the participating general practitioners' offices to carry out the consultancy-hours together with the general practitioners.

The protocol group was disbanded and the contribution by participants financially

settled.

Foregoing the implementation phase the Co-ordination Centre took the lead in organising a second certified post-graduate course. Furthermore extra training for the specialised diabetes nurses was considered an issue which needed further attention, as well as the nurses' attainability and reimbursement of expenses.

1997

The implementation phase of both projects A and B started. The nurses introduced themselves to the participating general practitioners. It was announced that except from the target population also the nurses, on what account criteria would be developed, could see other patients.

The regional inspection of health care, member of the advisory committee, subscribed to the protocol, thus allowing the aimed for vertical substitution without taking additional legal measures. Finally the key stakeholders signed a formal contract of co-operation.

In project B, the researchers who visited each individual participant explained the practical procedure that would be followed.

The name of the Diagnostic Co-ordinating Centre was changed into Transmural and Diagnostic Centre. On this occasion the Diagnostic Centre organised a symposium on innovative care and left out project B, about which circumstance correspondence was undertaken by the policy-group. However, this group did not function too well because of regular absence of one of the project managers. It was settled that the frequency of its meetings would drop. Instead both project managers would meet every month and report back to the policy-group. It was also arranged that the periodically published newsletter about project A henceforth would be replaced by a collective newsletter containing information about the progress of projects A and B. Extra measures were taken by the internists to promote the selection of patients on behalf of project A. It turned out that some of the internists showed reluctance about the patients' inclusion, which issue was talked over and dealt with. Once again the problem was discussed about general practitioners that also wanted to consult the specialised diabetes nurse for other diabetic patients than those who belonged to the project's target group. The nurses started seeing those patients. Again the issue of extra training for the specialised nurses was mentioned but not acted upon. In addition the nurses experienced a patient registration problem that endured. It regarded the efficiency and time consuming nature of this activity. Until autumn new patients were selected for project A.

A meeting was organised by the Co-ordination Centre in co-operation with the Diagnostic Centre for all the participants of projects A and B to evaluate their experiences with the implementation of both projects so far. One of the project managers put forward the idea about integration of the two projects in the near future. Consequently the bottleneck of seeing diabetic patients by the specialised nurses, who did not belong to the target group, was discussed again. The use of a transfer form by the internist to inform the specialised nurse after the yearly check-up was settled. Afterwards the project management of project B wanted to settle certification of the shared care model. Then the policy-group agreed upon a combined application with project B, in which the Co-ordination Centre took the lead.

1998

The study group of training general practitioners in the Maastricht-region granted the application for certification of both shared care models. Also a financial agreement for participation of general practitioners in project A was arranged for with the regional association of general practitioners.

A continuing-education course was organised by both projects A and B on behalf of the participating assistants of general practitioners, which was certified by the Dutch union of general practitioners' assistants.

Some practical problems about the yearly check-up of patients with the internist at the outpatient clinic in project A were solved. Again the procedure was discussed to enable the specialised diabetes nurses to see also diabetic patients not included in the target population during the consultancy-hour in the general practitioner's office on a

larger scale. This circumstance was particularly allowed for from the second year of the implementation phase, under the announcement: “You have to take care that you will not sit on the chair of the general practitioner or the specialist”. Once more the issue of extra training was raised. The management planned that questions could be addressed to the internists-endocrinologists at the outpatient clinic.

The future of the projects, including ideas about elaboration, became a subject for debate. An attempt was made to assign projects A and B, in combination with other regional projects, as a national project to enhance further the structuralisation of the care delivery for diabetic patients.

The policy-group decided to adapt the protocols as soon as more clarity was available about the dissemination phase.

Since during the implementation of both projects A and B dealing with foot problems of diabetic patients appeared to be a genuine problem, the third certified education programme was organised on behalf of the participating general practitioners.

On the basis of several meetings with participants a proposal was drawn up about a regional network in shared diabetes care. This was discussed at a meeting about dissemination of project A, which was organised by the Diagnostic Centre. Following meetings, in which more attention was paid to dialogue, resulted in further proposals about a disease management approach, including the finance of specialised nurses. Later on an implementation committee was installed that combined all proposals. The outcome was that both projects A and B should be integrated within a disease management model.

1999 So as to be informed about patients’ experiences during the implementation phase, patient focus groups were conducted.

To meet the request of the specialised nurses to take additional courses, the initiative was taken to develop an appropriate Higher Vocational Educational-training, also for newcomers.

In the meanwhile the aforementioned proposal was submitted for national subsidy. Furthermore meetings were set up with key players like the insurance company, hospital and home care agency to accomplish further financial agreements about the employment of the necessary capacity of specialised diabetes nurses and overhead expenditures. As a result of a positive reaction, the proposal was elaborated and meetings with the top management of key players were continued. In addition a new protocol was developed by all involved and potential participants, including the patient organisation, implying the integration of the protocols of projects A and B and the incorporation of new developments in the treatment and counselling of diabetic patients. Also an agreement was achieved to exploit an electronic diabetes management system to enable multidisciplinary registration.

Finally the national subsidy was granted and the financial involvement of a number of key players, i.e. the health insurer, hospital and home care agency, was attained. Then the proposed regional disease management model on diabetes care was introduced during a conference organised for all participants in the Maastricht-region, and other persons in the province of Limburg interested in the topic. It was agreed upon that the two project managers of projects A and B would conduct joint management and that a general project co-ordinator would be appointed next to a medical co-ordinator. In the end, the management started to visit groups of general practitioners to make practical arrangements for the dissemination phase

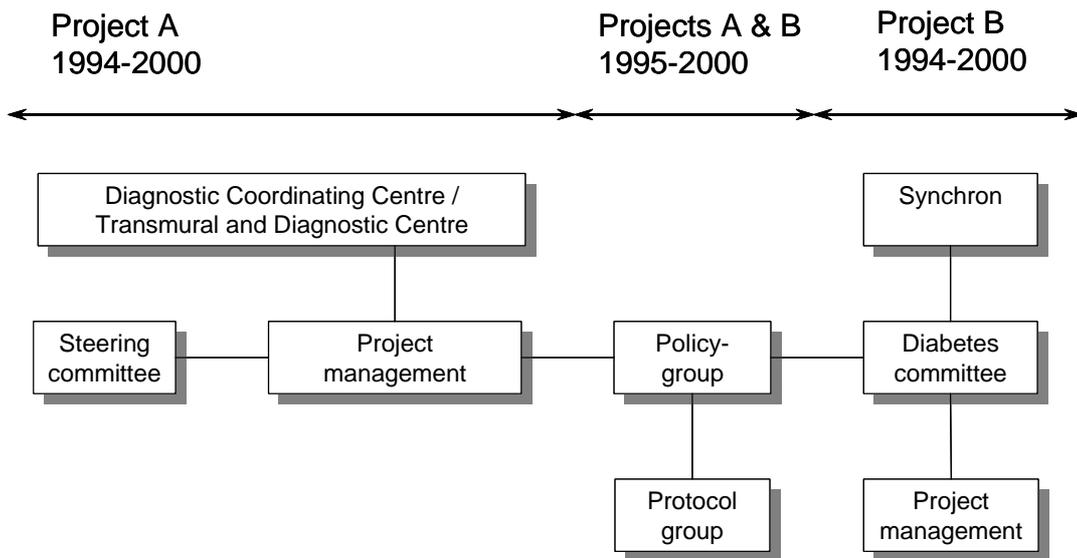


Fig. 1 Formal project structure of projects A and B from 1994-2000

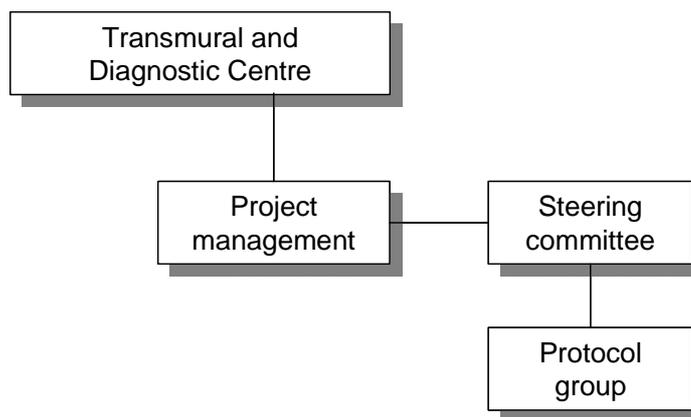


Fig. 2 Formal project structure of the disease management diabetes project from 1999-2000

Chapter 5

Leading innovation projects on shared care

5.1 Abstract

Today's health care systems are complex and lack integration at various levels, which calls for reconsideration of the care delivery process to serve the patients' needs. Innovative forms like shared care projects, in which generalists and specialists work together on the basis of agreements, seem promising but still meet a lot of resistance, especially when continuity after the end of a project is aimed for. Research on the change processes in such projects has shown that change management is the main influencing factor to overcome this resistance, but leaves a number of questions unanswered. This paper focuses on leadership aspects of two nurse-led shared care projects for patients with type 2 diabetes mellitus, that gradually merged in one project. A longitudinal multiple case study was used. The aspects studied comprise the characteristics of the persons who actually led these projects, their successful implementation tactics and the way they communicated. The outcome shows that the change processes involved were guided by several key managers, although the project manager proved to be the pre-eminent leader. He was superior to the other key managers in terms of leadership qualities like vision, passion, courage, inspiration, innovation and creativity and the use of personal, expert and referent power. The tactics used by the managers includes communication and education, participation, negotiation, coercion and top management support, and the application of these tactics was judged by themselves as predominantly positive. The project manager was evaluated most positively, but communication between the managers only began to run more smoothly towards the end of the project. Not until then did they appear to successfully overcome the main impediments to continuity of the shared care project. The paper discusses some of the lessons learned from both projects, which can be used to improve the way tomorrow's shared care innovation projects are led, and makes recommendations to achieve continuity after a project term ends.

Key words: shared care, health care innovation, management, leadership, tactics

5.2 Introduction

Health care systems and health care institutions are among the most complex and interdependent entities known to society [1]. Whereas the fulfilment of the aims of any system necessitates co-operation and collaboration between the various parts of the organisation of a system [2], the natural tendency in the development of complex organisations is towards the opposite phenomena: division, decentralisation and specialisation. These processes usually interfere with organisational requirements like efficiency and quality goals [3]. This natural tendency can also be seen in health care systems. As these systems have gone through unprecedented expansion during the second half of the last century, many factors worked to create divisions between various types of health care institutions and services on the one hand, and administrators, physicians, nurses and other professionals on the other [4]. Without integration at various levels, all aspects of health care performance suffer. Patients get lost, necessary services fail to be delivered or are delayed, quality and patient satisfaction decline and the potential cost-effectiveness diminishes [5-7].

For this reason, all health care systems in the Western world are facing the challenge to reconsider the process of care delivery. At many levels and in many ways, programmes and projects have been started to develop new concepts to improve the efficiency and quality of care. Nevertheless, integration of care will not be achieved easily. The various constituents of the health care system differ widely in nature, focus, prestige, size, financial resources, educational programme and culture. Managers and professionals have valid reasons to

consolidate their own positions in the system, and the positive effects of new forms of co-operation, collaboration and distribution of tasks are often not clear or unproven. In fact, a great deal of resistance has to be overcome. In our analysis of shared care projects, the most powerful method to overcome this resistance has turned out to be that of change management, defined as the goal-oriented steering of change processes [8,9]. But, contrary to the belief that highly diverse organisations with diverging interests need to be lightly co-ordinated [10-12], we assume that the guidance has to be explicit, especially when inter-organisational networks aiming for shared care need to last after the project term ends. After all, such networks consist of relatively independent organisations and autonomous professionals, interacting and negotiating with each other. Moreover, innovative networks aim to facilitate change and not the continuation of stable situations. Therefore, we wanted to know more about ways of guiding change.

The present study focused on the following research questions: What are the characteristics of the persons who actually determine the outcome of shared care projects; what successful management implementation tactics do they use to overcome resistance to change, and how do they communicate? This paper tries to answer these questions on the basis of data provided by two cases, and discusses their implications for managing future shared care projects.

5.3 The cases: shared care projects

The study focused on two shared care projects in the Dutch region of Northern Limburg, which were centred on the regional hospital and succeeded in continuing after the project term ended. The first project started in 1995 in the town of Venlo and the village of Velden, while the second began in 1996 in the town of Helden-Panningen. In both projects, nurse-practitioners specialising in diabetes care fulfilled a co-ordinating role at patient level and acted as the pivotal care providers. They took over the routine medical tasks from the general practitioners and from the internists at the outpatient clinic and carried them out during nurse-led consultancy hours in a primary care setting, in addition to their traditional nursing tasks [13]. The patients usually visited the nurses every three months and were also seen by the general practitioners for a medical check-up once a year.

Both projects aimed to improve the quality of care for patients with type 2 diabetes mellitus who visited a general practitioner, without increasing costs. To accomplish this, a multidisciplinary protocol was developed and agreed upon, in which substitution of care was the central issue, and which described the division of tasks and responsibilities of all caregivers involved [14,15], following a similar initiative centring around the University Hospital Maastricht [8]. The projects involved not only nurses, general practitioners and their assistants, but also internists, district nurses and dieticians.

The two projects were initiated and led by an internist–endocrinologist working at the regional hospital. The rest of the management structure of the projects consisted of a large diabetes project group, a diabetes steering committee and three general committees of the North Limburg Care Innovation Experiment, viz. the programme co-ordination committee, the care advisory committee and the board. These three general committees were responsible for more than twenty health care innovation projects. The project group consisted of the project manager, who also chaired the group, several caregivers, staff members and management representatives. This group decided on the project plan, the multidisciplinary protocol and the course of the project. However, for all formal decision-making and guidance issues, the project group needed permission from the diabetes steering committee and the general committees, which implied that their authority was rather restricted. The steering committee included representatives of the health insurer, the hospital management, the

regional association of general practitioners and the regional home care agency. Additionally, medical specialists were represented in the general committees. Although these general consultative bodies exercised their control at some distance, the multiple positions some representatives held in the project structure of the Care Innovation Experiment as such complicated matters. Furthermore, the two diabetes projects gradually merged, the project terms were extended and the project structure went through changes that led to a structure that was suitable for regional implementation. The diabetes project group was transformed into a steering committee on diabetes care, and a general regional board of top representatives was created. At that time, a project manager and chairperson were provided for by the home care agency, the former project manager became a medical advisor and finally a representative of the regional association of diabetes patients was appointed.

5.4 Concepts and methods

5.4.1 Concepts

The research design was based on a conceptual model, developed on the basis of empirical evidence collected in an evaluation of innovation projects in the early 1990s [16,17]. This model addresses several interrelated influencing factors, external as well as internal, and with facilitating as well as inhibiting impacts. For the purpose of this study, we focused on the internal factor of change management, in particular the successful tactics the change managers used in the projects [18-20]. We also integrated the management function of leading, which is inherent in the management process [18,21,22]. The resulting conceptual framework is shown in Fig. 1, and its concepts are listed in Table 1.

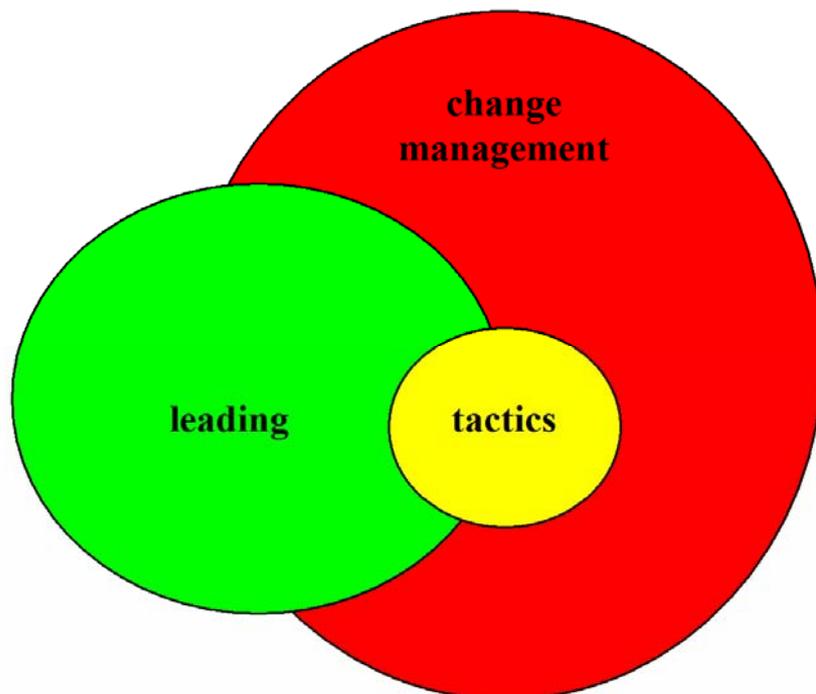


Fig. 3 Conceptual framework

Table 1 List of concepts

Concepts	Description
Change management – including tactics–	The goal-oriented steering of change processes by persons responsible for project activities by using a project structure, a project plan, change strategies – viz. outlining desired organisation’s aims– and tactics –viz. managerial means or techniques accompanying the chosen strategies–, and behaving as outstanding change managers
Successful implementation tactics	Communication & education: providing solid information about an intended organisational change to users and others who may oppose its implementation, viz. by one-on-one discussions, presentations in groups, memos and/or reports about the nature of the desired for change and its implications & preparing and training users –for instance about required new technical knowledge– for the promotion of an implementation Participation: arranging taking part in designing change activities by its users and potential opponents, in particular to achieve understanding of a desired for change and commitment to it Negotiation: using formal bargaining to achieve acceptance and approval of a desired for change by offering incentives to its opponents Coercion: using formal power by threatening to force opponents to accept a desired for change, for example by losing rewards Top management support: providing visible support from top management for a desired for change, symbolising its importance to all users, including those who doubt legitimacy of the change, in order to overcome resistance to change
Leading	Using influence to motivate departments, divisions and individuals working directly with a manager, to achieve the organisation’s goals. This means creating a shared culture and shared values, communicating goals to employees throughout the organisation, and energising them to perform at a high level

The framework of Fig. 1 was used as a general analytic strategy to gather and analyse data according to an embedded single case design. This means that one case was followed by a highly similar case resembling a branching, which finally unites with the first case [23], as both projects demonstrate.

In order to answer the first research question, we focused on the leadership qualities of the persons who actually determined the outcome of the projects [24,18] and their management qualities [24,18], as well as the positions they held within organisations and the other interests they served. To underline the difference between leadership and management qualities, we looked at the sources of power they used, as listed in Table 2, and the level of compliance the use of this power engendered within the group of persons involved [18,25,26,2]. This means that we emphasised leadership as an interaction process between leaders and followers.

Table 2 List of sources of power

Concept	Description
Position power	Power to reward or punish subordinates to influence their behaviour coming from external sources of a manager's position in the organisation, being legitimate, reward or coercive power
Legitimate power	Power stemming from a formal management position in an organisation and the authority granted to it
Reward power	Power stemming from the authority to bestow rewards on other people
Coercive power	Power stemming from the authority to punish or recommend punishment
Personal power	Power to influence employees' behaviour coming from internal sources of expert or referent power
Expert power	Power stemming from special knowledge of or skills in the tasks performed by subordinates
Referent power	Power stemming from characteristics that command subordinates' identification with, respect and admiration for, and wish to emulate a leader

To answer the second research question, we focused on the component of tactics as a part of the leading function. Our approach built on results of previous research indicating the following implementation tactics as the most successful ones in dealing with resistance to change: communication and education, participation, negotiation, coercion and top management support [18,19,20]. These tactics are listed in Table 1. We wanted to assess whether leaders in shared care projects also applied these tactics and if so, how. To this end, we evaluated the use of tactics as positive or negative, depending on whether the tactics served the project's aim or worked against it. Working against the project's aim meant that the manager's own interest or that of his organisation prevailed, or that it was at least questionable whether he was serving the best interest of the project. Additionally, we closely studied the tactics of communication, insofar as it was used by leaders in the shared care projects. This aspect seemed particularly interesting, since by and large, managers appeared to apply this tactics for about 80 percent or more of their working hours [18,27]. The aspects of open communication, dialogue and feedback were also addressed, in view of the emphasis placed on them by today's managers in leading companies as a means of building trust, promoting learning and solving problems. These communication aspects are listed in Table 3.

Table 3 Aspects of communication tactics

Concepts	Description
Open communication	Sharing all types of information throughout the organisation, across functional and hierarchical levels, both formal and informal
Dialogue	A group communication process in which participants together create a stream of shared meaning that enables them to understand each other and to share views. This process aims at creating a culture founded on collaboration, fluidity, trust and commitment to shared goals
Feedback	Using communication and evaluation to help individuals and an organisation to learn from things that work and do not work and to improve their work or organization

5.4.2 Methods

A longitudinal multiple case study lasting about three years was conducted, with periodic data collection during three project phases, i.e. the preparation of the project, its implementation and the preparation of its dissemination. Data were collected from several sources, to allow triangulation [23]. The main source consisted of in-depth interviews, but we also used questionnaires, documents and reports such as protocols, minutes and policy papers, in addition to observations of formal group meetings.

The research population consisted of two specialised nurse practitioners, 12 general practitioners, two internists–endocrinologists, two dieticians, two district nurses and five management representatives.

The interviews and questionnaires were largely the same in terms of structure and depth, except for the management interviews, which also included supplementary in-depth questions. The respondents were asked about their expectations about and experiences with the occurrence and impact of the items of the change management factor, changes over time, their role and influence compared to other participants, and the lessons they had learned. The interviews were tape-recorded and the written questionnaires were sent by post.

Data analysis partly involved the specific analytic strategies of ‘explanation building’ and ‘time-series analysis’, in addition to the general strategy (Fig. 1). Explanation building implies the gradual building of an explanation of a phenomenon that is being studied, while time-series analysis traces changes over time. Additional information was gained by evaluating the tactics used by each manager as positive or negative, by allocating plus or minus signs, respectively. A plus implied that the tactics applied served the aim of the project, while a minus signified that the tactics involved worked against this aim. In the latter case, the manager’s own interest seemed to prevail, or that of the organisation represented by the manager. A third option was that the manager suggested manipulating the course of the project in a way that made it questionable whether the project’s best interest was being served. In view of the tentative nature of this enterprise, each manager was allocated a maximum number of pluses and minuses for each tactics, i.e. one based on the manager’s own perspective and one based on the other key managers’ viewpoints, regardless of the number of times the tactics was actually found to be applied. The resulting tables should be regarded as an overview.

Our analytical strategies resulted in a cross-case analysis.

5.5 Results

5.5.1 Characteristics

According to the respondents in both of the shared care diabetes projects, four persons played a prominent role in the outcome, i.e. the project manager and three management representatives, one from the hospital, one from the home care agency and one from the local health insurer. All of them demonstrated leadership and management qualities, used different types of power and showed different main interests (Table 4).

Table 4 Characteristics of the persons who determine the outcome of the shared care projects*)

Characteristics/	Manager	Project	Hospital	Home care agency	Health insurer
<i>LEADERSHIP QUALITIES</i>					
Visionary		++	+	+	+
Passionate		++	+	+	+
Creative		++	+	+	+
Inspiring		++	+	+	+
Innovative		++	+	+	+
Courageous		++	+	+	+
Experimental		++	++	++	++
Initiates change		++	+	++	++
Flexible		--	--	--	--
Imaginative		+-	+-	+-	+-
<i>MANAGEMENT QUALITIES</i>					
Rational		++	++	++	++
Consulting		++	++	++	++
Persistent		++	++	++	++
Problem solving		++	++	++	++
Tough-minded		++	++	++	++
Analytical		++	++	++	++
Structured		++	++	++	++
Deliberate		++	++	++	++
Authoritative		+	+	+	+
Stabilising		+-	+-	+-	+-
<i>POSITION</i>					
Position power		+-	++	++	+-
Legitimate power		-	++	++	-
Reward power		+	+	+	+
Coercive power		+	+	+	+
Personal power		++			
Expert power		++			
Referent power		++			+
<i>ORGANISATION INTEREST</i>					
Quality improvement of diabetes care		++	+	+	+
Realization of a regional network		++	++	++	++
Change of attitude of medical specialists		+	++	+	+
Change of attitude in an organization		+	++	+	+
Serving public relations		+	++	++	++
Control of expenditures		+	+	+	++
Preserving jobs of the nursing discipline		+	+-	++	+-
Creation of jobs for nurse practitioners		+	+-	++	+-

- *) + = somewhat present/present
 ++ = strikingly present
 - = somewhat absent/absent
 -- = strikingly absent

In all project phases, however, the most courageous, inspiring, innovative and creative person, who also passionately promoted his vision, was found to be the project manager. In view of personal power to be the pre-eminent tool of the leader, he succeeded in uniting a local network of people working together on the improvement of diabetes care delivery, due to his extensive expertise in the medical field of diabetes care. In addition to expert power, he was also able to use referent power. This implied that his personal characteristics of ambition, dedication and fighting for one's point of view commanded a degree of identification, respect and admiration, with others wishing to emulate the leader to some extent. The reactions of the followers showed that they shared his point of view and carried out his instructions. In other words, the project manager was considered the pre-eminent leader and the outcome of the shared care projects consequently bore the stamp of his personality. But the project manager also displayed signs of short temper, restlessness and impatience. Ultimately, none of the respondents regarded him as a charismatic leader, rather as an idealist who fought for his ideal of optimal diabetes care delivery. He appealed to position power as an internist–endocrinologist working in the hospital and was considered a spokesman of the hospital for some time, although he did not hold a formal management position within the hospital and consequently had no legitimate power. In the context of the regional network, his ideals appeared to be his main interest, while the management representatives showed that they simultaneously served different major organisational interests. The prevailing interest at the hospital appeared to be a change in organisational attitude to focus on cure tasks as the core business, while the home care agency aimed for the preservation and extension of nursing jobs to safeguard continuity, and the health insurer aimed at budget control and regional financial responsibility for the shared care enterprise. The only other person who also exercised referent power happened to be the first representative from the local insurance company. This resulted from this person's exceptional involvement and supportive attitude in regard to all the projects included in the North Limburg Care Innovation Experiment.

It was especially in the final project phase, however, that all three management representatives showed their leadership qualities to greatest effect. In this phase, they succeeded in changing their somewhat distant behaviour and signs of opposing reactions into an involvement that meant that regional co-operation and responsibility for the shared care diabetes arrangement began to prevail.

5.5.2 Implementation tactics

The project manager as well as the three management representatives appeared to use all implementation tactics we knew from previous research to be successful (Tables 5 and 6), although they had difficulty naming them and making clear distinctions between them.

Table 5 Successful tactics applied throughout the shared care projects based on the manager's own view*)

Manager	Project			Hospital			Home care agency			Health insurer		
	1	2	3	1	2	3	1	2	3	1	2	3
Project phase												
Tactics of communication & education	+	+	+		+	+		+	+	+	+	+
Tactics of participation	+	+	+	+	+	+		+	+		+	+

Tactics of negotiation						+					+	+
Tactics of coercion	-	-	-	+	+					+	+	+
Tactics of top management support	+	+	+	+	+	+				+	+	+

- *) + = application of the tactics in a positive way
 - = application of the tactics in a negative way

Table 5 also shows that each manager judged the application of his or her own tactics as predominantly positive.

Example of positive view by the project manager on communication & education and participation

During the projects I talked an awful lot, organised and participated in many meetings. I guess I wrote whole books and large numbers of letters, based on facts from the literature. I was very persuasive due to my knowledge of diabetes medicine, which I used of course.

Example of positive view by the home care agency on education

We educated persons who were smart and ambitious enough to take on the job of specialised nurse practitioner and worked out disputes about the division of responsibility between disciplines.

Example of positive view by the insurer on participation

I took part in the projects later on. To me, joining them implied advocating shared commitment and shared responsibility.

Negative associations were particularly attached to the use of coercion, communication and education. Both the project manager and the representative of the health insurer were responsible for the negative impact of coercion in all project phases, although apparently all four managers applied one or more tactics in a negative way.

Example of negative view by the project manager on coercion

In the beginning of 1999 we got entangled in the second big crisis. We were promised financial means to continue after the projects' ending, but no clarity was provided. Then I really threatened the insurer that I would end my participation to the project. This is not done, but sometimes this is necessary, isn't it?

Example of positive/negative view by the insurer on coercion

Unlike my predecessor I took a hard line doing business, if necessary. In my opinion this was not unreasonable.

Table 6 Successful tactics applied throughout the shared care projects based on the view of other managers*)

Manager	Project			Hospital			Home care agency			Health insurer		
	1	2	3	1	2	3	1	2	3	1	2	3
Tactics of communication & education	-	+	++	--	-	++	-	+	++		-	+

Tactics of participation		+	+		+	++		++	++			
Tactics of negotiation				-					-		-	-
Tactics of coercion	+	++	++			+					-	
Tactics of top management support	+	++	++	-	-	+	+++		++	+		-

*) + = application of the tactics in a positive way according to one other manager
 - = application of the tactics in a negative way according to one other manager

Table 6 shows the managers' judgments of the tactics applied by them. Although there were on the whole more positive than negative judgments, the negative views were quite substantial, particularly in the final project phase. Overall, the tactics used by the project manager and the representative of the health insurer were evaluated as best and worst, respectively. The use of the tactics of management support seems to have been valued most positively, whereas the implementation of the tactics of communication and education appears to have been evaluated most negatively.

Broadly speaking, the outcome shows that the managers supported the aim of the projects, but at the same time had difficulty sticking to it. Occasionally, they all seemed to act out of their own interest or that of their organisation, or suggested manipulating the course of the projects in a way that made it questionable whether the projects' best interest was being served. However, such attempts to let the projects stray from the agreed aims may have been unintended and sometimes even inevitable, due to altered circumstances. Despite their inhibiting influence at the time, these attempts were successfully counteracted afterwards. In the end, the tactics used appear to have successfully overcome the main impediments to continuing the shared care activities.

5.5.3 Communication

Of the four key managers, the project manager came out best as regards sharing information throughout the term of the projects, although the level of open communication that was achieved among themselves left much room for improvement. Notwithstanding the fact that the project manager knew how to deal with both formal and informal ways of communicating, he became stuck every now and then. This was mainly due to the rules governing the communication structure of the North Limburg Care Innovation Experiment, which were experienced as non-transparent, impracticable and laborious. The formal influence of the project manager on decision-making about management issues of the diabetes projects was restricted to the project group itself. The interests of the projects were represented in the diabetes steering committee and the general consultative bodies by the representative of the hospital management, who was also a member of the project group. However, this representative was repeatedly absent at the committee's meetings, and no deputy had been arranged and was even denied. Within the project group, all types of information were shared, whether formal or informal. Although a rather open way of communication prevailed, some disputes arose which provoked the project manager to cause crises in the first two project phases. These crises were evaluated afterwards and lessons were learned by mutual feedback. Ultimately, communication ran more smoothly during the final project phase, after the project group had been transformed into the steering committee for some time. The key managers went through internal differences of opinion, disputes and threats to end the project activities, while using hidden agendas to some extent. Initially, they

held informal conversations, which actually meant discussions in which they put forward their positions, strongly advocated convictions, tried to convince others and built alliances to oppose certain views. Gradually they managed to achieve some dialogue, in which feelings were revealed as a part of mutual feedback, assumptions were explored, convictions became suspended, and some common ground was found.

Example of the view of the home care agency

| Anyway, now our mind is set on finding solutions together....

Example of the view of the hospital

| Participants are more involved now. We have become more like a group.

Apparently, the obstruction policy that characterised the first project phases had been necessary to achieve a growing awareness of joint responsibility for the shared care enterprise and its continuity after the end of the projects. Together, the managers involved even learned to promote scaling up of the projects to a regional level.

Example of the view of the home care agency

| I learned that you need to communicate with those parties who are necessary to arrange things. It's good to get such projects off the ground by some internists, general practitioners and nurses, but to do a good job, all the other medical practitioners in the region need to participate too. This means giving more attention to those who are not so willing to participate, like the internists' partnership at the hospital. Otherwise, you reach the finish line alone, and in the case of the projects, the project manager's ideals would be lost. With all due respect, the project manager provided for by the hospital demanded that people complied with his ideal of diabetes care delivery to the detriment of finding solutions. As the chair of the steering committee, you need to unite partners or maintain order, which would have been a strange position for this project manager, since he operated more as a person than as a spokesman of the hospital.

Example of the view of the hospital

| I learned that getting one person to initiate and promote innovative projects elicits resistance after some time. This arrangement makes you very dependent on this person. Now there is a broader commitment. It's only the scaling up that still has to be carried out. But it took a long time to get this far. I think this phasing was necessary, despite its adverse consequences. Anyway, if improvement goals are set, people should ask themselves what parties to consult, i.e. those that are willing to participate from the start, next to those that can be assumed to oppose the projects and should therefore join. I also learned that the involvement of general practitioners is troublesome, in terms of both content and process. Although they have certain common interests, they all also have different interests due to the way they are organised, which impedes the development of clear agreements. Notwithstanding this, the regional association of general practitioners tries its best.

Example of the view of the insurer

| I learned that it is very important to prepare the continuity of the projects thoroughly and in time. The financial section of the protocol had not been finalised beforehand. The top management within the Care Innovation Experiment should have looked ahead beyond the terms of the projects. They started to worry about this rather late. This is frustrating. Nevertheless, the managers involved in the steering committee showed their good will. In the end, they all work for a common goal, regardless of the organisation they represent. They even manage to subordinate the interest of the organisation to that

of the projects. I think this is rather unique. In essence, the outcome of the projects depends on persons and the communication between them.

Example of the view of the project manager

I learned that it could be wise to keep my mouth shut. I think I did the right thing by taking initiatives and stimulating people, instead of using rather provocative actions and communication. Now the organisation suits its broad scale, the result obtained can no longer be reversed. The motto has become to persevere in the dissemination of the shared care arrangement.

5.6 Discussion and conclusion

The outcome of this study indicates that persons leading shared care innovation projects towards continuation after the project term ends have an arduous task. They have to accomplish rather drastic changes to common systems of care delivery, collaborative patterns, organisational structure, culture and positions of power in an inter-organisational network [28,29]. Some of the lessons learned from our study could be used to improve the way such projects are led in the future.

First, there is the issue of leadership in an inter-organisational network. The data indicate that the project manager was the leader of the shared care projects, whereas three participating management representatives also demonstrated striking leadership qualities at the same time. Although it may be argued that there should never be two captains on one ship, the rather complicated, multi-stage, sizeable and non-transparent project structure of the North Limburg Care Innovation Experiment may have contributed to this outcome. The project manager was not allowed to participate directly in the decision-making beyond the level of the project group, unlike the three management representatives, who could decide directly on policy matters about the diabetes projects and other projects at a higher level. This situation definitely meant that they could not be regarded simply as followers of the project manager. To allow a project manager to demonstrate his/her leader qualities to greatest effect, we would argue that the project structure needs to be characterised by the utmost degree of transparency during all project phases, including the delineation of the project manager's responsibilities and formal authority. This is especially true in the case of a rather sizeable and complex network context and if the objective is the continuation of project results after its formal ending. To allow good leadership to be demonstrated in future, each health care innovation project should at least monitor the transparency of its chosen project structure.

The second issue is that of the project manager's leadership qualities. The data show that the project manager's leadership was superior to that of all other key managers involved, although the project manager did not possess line authority and was not a charismatic leader. This lack of formal authority is comparable to the position power of other project managers [8], but the extent of charismatic leadership remains controversial. So far, the concept of charisma remains ambiguous and has been used inconsistently, while the attribution of charisma to project managers is not a matter of course [30,31].

Like charismatic leaders, however, the project manager created an atmosphere of change, demonstrated a strong vision about future diabetes care delivery and motivated employees to help realise it, while transcending their expected performance [18]. In addition, his huge intrinsic motivation and inspiration to succeed, together with his dominant presence and energy to fight for the aims of the projects, underline our view that the project manager clearly showed charismatic features, i.e. authority. We consider such authority to be an essential quality if innovation activities are to be continued after the project term expires. This charismatic aspect goes well with transformational leadership. We recommend that future project managers use this type of leadership, which involves leaders that rely not only on

specific rules, but also on incentives and qualities like vision, shared values, ideas about building relationships, giving wider meaning to activities and finding common ground to enlist followers in the change process [18,32-35]. It brings about changes in the organisation's mission, strategy, structure and culture, and promotes the kind of innovation in products and technology that is necessary in health care innovation.

When it comes to the intensity of guidance that is needed, the evidence gathered in this study seems to disprove the view that highly diverse organisations with divergent interests have to be lightly co-ordinated [10-12]. Organisations that participate in shared care projects traditionally use a vertical management structure, do not advocate change and are not accustomed to projects organised as dynamic, loosely linked networks. When the managers of these organisations join a project, it cannot be taken for granted that they will also serve the project's aim wholeheartedly, unlike the project manager. Despite the lack of formal authority, the project manager's leadership indicates that explicit steering of the network is necessary to guide the participants through the necessary change processes in order to attain a project's aim and to safeguard co-operation and continuation of the activities after a project ends. This explicit guidance involves convincing participants and potential participants to question the status quo, to exchange ideas about new ways to solve old problems, to collaborate, to decide on the preferred direction and to carry out the necessary arrangements in a flexible way. An inherent part of the work is that of reconciling divergent interests of several parties and settling their power conflicts, besides differences in culture and structure. It is vital to arrange periodic evaluations of the activities undertaken and revise them on the basis of the progress achieved. To promote the continuation of the activities, the project leader needs to vigorously ensure that those involved learn from past experiences, that things are made more explicit and that growing and definite commitment is established. The least that other participating managers have to come up with are light forms of steering supporting the project manager's leading activities. In short, to achieve the follow-up phase, we suggest that a project manager should opt for transformational leadership, demonstrate authority and explicit leadership by using a wide range of tactics.

The third issue is that of managers' competence in applying successful tactics. It seems peculiar that the key managers judged their application of tactics throughout the projects not only as positive also repeatedly as negative, although they had difficulty naming them. However, a comparison of project phases with stages of team development shows that conflicts in such stages are inevitable, and it cannot be taken for granted that commitment to the team's mission will be achieved [18,36]. In other words, resistance to change and the occurrence of conflicts are common. The latter may even lead to better decision-making and to competition, resulting in higher performance [18]. All this indicates that managers in future innovation projects need to be challenged to apply their tactics more competently, i.e. consciously and in a well-balanced manner. In view of the substantial negative judgment on the key managers' use of coercion as a tactics, and participants' agitated and even enraged comments on its application, we recommend restricting the application of coercion to crisis situations when a rapid reaction is urgent, and to situations when other implementation tactics have already failed [19,18]. Another example is the exclusion of stragglers and neutrals belonging to the medical discipline, which presented a barrier to the extension of the project activities. We recommend that future project management should analyse for each project phase the positioning of participants and potential participants in terms of the degree to which they support the change and their influence over others, and vary their use of the tactics of participation [37]. The last aspect concerns the lack of effective communication among the key managers. To overcome this in future, managers may consider focusing explicitly on improving personal skills like active listening, including giving feedback to the sender and choosing the appropriate channel to transmit routine, emotional or complex messages.

Additionally, special attempts can be made to understand the receiver's perspective, clarifying semantics and perceptions, and checking communication with others [18].

The fourth issue is the management perspective. Our rejection of the aforementioned view on light co-ordination might be the consequence of not making the management perspective on leading innovation projects explicit in advance. As was the case with the other shared care projects we studied in recent years, we once again identified a number of elements of the learning organisation in the projects at hand. This strengthened our view that the 'learning organisation' is the most promising management perspective to adhere to in these circumstances. It offers opportunities to engage everyone in identifying and solving problems, and enables the organisation to continuously experiment, change, improve and increase its capacity to grow, learn and achieve its purpose. All these elements appear to be conditions that have to be met for projects to survive in the long run. If we also take the learning organisation's characteristics into consideration, like a horizontal team-based structure, open information, decentralised decision-making, empowered employees and a strong adaptive culture, the perfect approach seems within reach [18,38]. Today's increasing shift towards more horizontal structures underlines this view.

It may be expected that adherence to this management perspective will also improve the already advocated monitoring of the transparency of the project's structure. Consequently, the management perspective of innovation projects needs to be made explicit in advance. Yet, in comparison to the traditional organisation, the learning organisation is at the opposite end of the scale. In due time, i.e., when health care innovation is led by leaders in agreement with the management perspective of the learning organisation as a common practice [39], the above position may be acceptable after all.

The fifth issue is the approach to disease management. Nowadays, principles of shared care activities are considered to be tied to the disease management movement [40,8,9,41]. Although its definition varies, this movement in essence uses a systematic and programmed approach to specific diseases by the use of management instruments to improve the quality of care delivery and its efficiency [40]. During the final phase of the shared care diabetes projects, the initial impetus was expanded into a regional approach. At that stage, the key managers could have taken advantage of aspects of the disease management movement, like the explicit use of advanced information and communication technology, benchmarking and feedback. However, the application of disease management elements is laborious and may complicate matters. A promising approach to overcome this seems to be an incremental approach fitted to the situation at hand. In general, we recommend making proper use of disease management from the moment the object of shared care becomes a well-defined population or subpopulation of chronically ill patients. For the leaders of tomorrow's innovation projects, this implies the promotion of innovation that allows the participants to adapt it in ways that are most meaningful to them [42]. Yet, in our view the biggest challenge they still have to face is the lack of a recipe to achieve this.

We may draw the conclusion that leading innovation projects on shared care resembles turning in a top performance only granted to top players who are eager to improve their tactical game to win together. The conceptual framework we used seems promising for researchers who wish to study these projects in the near future. Further exploration of the issue of leadership may benefit from managers who will explicitly adhere to the management perspective of the learning organisation.

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References

- [1] Charns M, Tewksbury L. Collaborative management in health care: implementing the integrative organization. San Francisco: Jossey-Bass, 1993.
- [2] Pfeffer J. Power in organizations. London: Pitman, 1981.
- [3] Lawrence P, Lorsch J. Organization and environment: managing differentiation and integration. Boston: Division of research, Harvard Business School, 1967.
- [4] Kodner DL, Spreeuwenberg C. Integrated care: meaning, logic, applications, and implications – a discussion paper. *International Journal of Integrated Care* 2002;2(October-December). [available from: <http://www.ijic.org>].
- [5] Andersson G, Karlberg I. Integrated care for the elderly. The background and effects of the reform of Swedish care of the elderly. *International Journal of Integrated Care* 2000;1(October-December). [available from <http://www.ijic.org>].
- [6] Shortell S, Gillies R, Anderson D, Erickson K, Mitchell J. Creating organized delivery systems: the barriers and facilitators. *Hospital and Health Services Administration* 1993;38(4):447-66.
- [7] Berwick D. Controlling variation in health care. *Medical Care* 1991;12:29-33.
- [8] Eijkelberg IMJG, Spreeuwenberg C, Mur-Veeman IM, Wolffenbuttel BHR. From shared care to disease management: key influencing factors. *International Journal of Integrated Care* 2001;1(January-March).[available from <http://www.ijic.org>].
- [9] Vrijhoef HJM, Spreeuwenberg C, Eijkelberg IMJG, Wolffenbuttel BHR, Merode GG van. Adoption of disease management model for diabetes in region of Maastricht. *British Medical Journal* 2001;323:983-85.
- [10] Godfroij A. Netwerken van organisaties. Strategieën, spelen, structuren. (Networks of organisations. Strategies, games, structures) 's-Gravenhage: VUGA Uitgeverij BV, 1981.
- [11] Spreeuwenberg C. (Net)werken voor chronisch zieken. ((Net)works for chronically ill) Maastricht: Rijksuniversiteit Limburg, 1994 (Inaugural lecture).
- [12] Raak A. van. Zorgvernieuwing: een kwestie van routine. Een studie naar de vorming van interorganisationale netwerken en naar systeemveranderingen in de thuiszorg vanuit interactionistisch perspectief. (Health care innovation: an interactionist study of the shaping of interorganizational networks and changes in home care systems) Maastricht: University Press, 1998 (Thesis).
- [13] Frederix M, Spreeuwenberg C. Naar een centrale rol voor de verpleegkundige. (Towards a central role for the nurse) *TVZ Tijdschrift voor Verpleegkundigen* 1995;6: 172-75.
- [14] Wilderen L van, Alphen TVC van, Eijkelberg IMJG, Geven JHM, editors. *Zorgnetwerk voor diabetici in Noord-Limburg. (Care network for patients with diabetes mellitus in Northern Limburg)* Venlo: Zorgvernieuwingsexperiment St. Maartens Gasthuis, 1998.
- [15] Wilderen L van, Eijkelberg I, Vrijhoef B, Keijzer F, Spreeuwenberg C, Paulus A, Raak A van. Transmurale diabeteszorg in Noord-Limburg. (Shared care in Northern Limburg) In: Bilo HJG, Nunen F van, Ballegoie E van, Meyboom-de Jong B, Ubink-Veltmaat LJ, editors. *Transmurale zorgvormen van diabetes mellitus. Een verkenning van de situatie anno 2000. (Integrated care on diabetes mellitus. An exploration of the situation in the year 2000)* Zwolle: Isala klinieken, 2000.
- [16] Raak A van, Jongerius-de Gier G, Massop J, Mur-Veeman I. Brug tussen gisteren en morgen. *Zorgvernieuwing als veranderingsstrategie voor een betere zorg in de toekomst. Evaluatie 'Programma Zorgvernieuwingsprojecten Thuiszorg van WVC'*. Eindrapportage. (Bridge between yesterday and tomorrow. Innovative care as change strategy to achieve improved care in future.

- Evaluation 'Programme Innovative care projects on primary care by WVC'. Final report) Maastricht: Rijksuniversiteit Limburg, 1993.
- [17] Eijkelberg I, Mur-Veeman IM. Veranderingsprocessen in de transmurale zorg. (Change processes in shared care) In: Spreeuwenberg C, Pop P, Beusmans GHMI, Winkens RAG, Zutphen H van, editors. *Handboek transmurale zorg. (Textbook on integrated care)* Maarssen: Elsevier gezondheidszorg; 2000:37-66.
- [18] Daft RL. *Management*. 6th ed. Mason: Thomson South Western, 2003.
- [19] Kotter JP, Schlesinger LA. Choosing strategies for change. *Harvard Business Review* 1979;57(march-april):106-14.
- [20] Longest BB. Organizational change and innovation. In: Duncan WJ, Ginter PM, Swayne LE, editors. *Handbook of health care management*. Malden: Blackwell Publishers; 1998:369-98.
- [21] Kouzes JM, Posner BZ. The credibility factor : what followers expect from their leaders. *Management Review* 1990;january:29-33.
- [22] Yukl G. Managerial leadership: a review of theory and research. *Journal of Management* 1989;15:251-89.
- [23] Yin RK. Case study research. Design and methods. *Applied social research methods series*, vol. 5, 2nd ed.. London: Sage Publications, 1994.
- [24] Capowski G. Anatomy of a leader: where are the leaders of tomorrow? *Management Review* 1994;march:12.
- [25] French JRP Jr, Raven B. The bases of social power. In: Cartwright D, Zander AF, editors. *Group Dynamics*. Evanston: Row, Peterson; 1960:607-23.
- [26] Mintzberg H. *Power in and around organizations*. Englewood Cliffs: Prentice-Hall, 1983.
- [27] Mintzberg H. *The nature of managerial work*. Englewood Cliffs: Prentice-Hall, 1980.
- [28] Mur-Veeman I, Eijkelberg I, Spreeuwenberg C. How to manage the implementation of shared care. A discussion of the role of power, culture and structure in the development of shared care arrangements. *Journal of Management in Medicine* 2001;15(2):142-55.
- [29] Eijkelberg IMJG, Spreeuwenberg C, Wolffenbuttel BHR, Wilderen LJGP van, Mur-Veeman IM. Nurse-led shared care diabetes projects: lessons from the nurses' viewpoint. *Health Policy* 2003;66:11-27.
- [30] Yukl G. An evaluation of conceptual weaknesses in transformational and charismatic leadership theories. *The Leadership Quarterly* 1999;10(2):285-05.
- [31] Jacobsen C, House RJ. Dynamics of charismatic leadership. A process theory, simulation model, and tests. *The Leadership Quarterly* 2001;12:75-12.
- [32] Bass BM. Theory of transformational leadership redux. *Leadership Quarterly* 1995;6(4):463-78.
- [33] Tichy NM, Devanna MA. *The transformational leader*. New York : John Wiley & Sons, 1986.
- [34] Daft RL, Lengel RH. *Fusion leadership: unlocking the subtle forces that change people and organizations*. San Francisco: Berrett-Koehler Publishers, Inc., 1998.
- [35] Boehnke K, Bontis N, DiStefano JJ, DiStefano AC. Transformational leadership: an examination of cross-national differences and similarities. *Leadership & Organization Development Journal* 2003;24(1):5-15.
- [36] Tuckman BW, Jensen MAC. Stages of small-group development revisited. *Group and Organizational Studies* 1977;2:419-27.
- [37] Scholtes PR. *The leader's handbook. Making things happen, getting things done*. New York: McGraw-Hill, 1998.

- [38] Senge PM. The fifth discipline. The art & practice of the learning organization. New York: Currency Doubleday, 1994.
- [39] Prewitt V. Leadership development for learning organizations. *Leadership & Organization Development Journal* 2003;24(2):58-61.
- [40] Spreeuwenberg C, Pop P. Transmurale zorg. (Shared care) In: Spreeuwenberg C, Pop P, Beusmans GHMI, Winkens RAG, Zutphen H van, editors. *Handboek transmurale zorg. (Textbook on integrated care)* Maarssen: Elsevier gezondheidszorg; 2000:17-36.
- [41] Schrijvers G, Spreeuwenberg C, Laag H van der, Rutten G, Nabarro G, Schene A, Linden B van der, Acampo M. Disease management in de Nederlandse context. (Disease management in the Dutch context) Utrecht: Igitur, 2005.
- [42] Plsek PE, Wilson T. Complexity science. Complexity, leadership, and management in healthcare organisations. *British Medical Journal* 2001;323:746-49.

Chapter 6

Nurse-led shared care diabetes projects: lessons from the nurses' viewpoint

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6.1 Abstract

This paper explores the experiences of four nurse practitioners specialised in diabetes care, in the development and implementation of two Dutch nurse-led shared care projects to improve quality of care. The focus is on the impeding factors involved. The nurses' views are compared to those of the 38 participating physicians by using instruments of qualitative research. Both nurses and physicians consider the way shared care delivery has been structured as the most impeding factor, particularly downward substitution of care from doctor to nurse. In the end, lessons are drawn for nurses, doctors and managers, to solve the assessed impediments to shared care.

Keywords: shared care, nurse practitioner, diabetes care, downward substitution, impeding factors

6.2 Introduction

All Western countries should establish a health care system that meets the needs of the population in terms of quality and efficiency. This is a challenge because the number of people with chronic disorders is increasing and their expectations of care delivery become more demanding. One of the instruments to meet this challenge is care delivery by specialised nurse practitioners who take over medical tasks from doctors. Experiences in the United States have shown that a lot of these tasks can be carried out without losing the main job characteristics of the nurses, especially education and counselling.

Substitution from doctor to nurse has been preferred and chosen for several reasons. Apart from high quality of medical 'cure', patients ask for 'care'. This means that health care providers have sufficient time to listen, pay serious attention and show emotional concern. Recent legislation and political trends require provision of sufficient information and education [1], and consider the treatment of patients more like clients or consumers [2,3]. Doctors fail to meet these patients' needs and use frequently the argument of increased workload [4]. Generally, they dislike any judgement of their performance and seldom stipulate insufficient knowledge and competence as contributory [5]. Standards to improve their knowledge and alignment of relationships with patients and with other care providers have not been welcomed wholeheartedly, since they underline the doctors' loss of autonomy [6,7]. Some governments, like in the Netherlands and the United Kingdom, promote the development and application of so-called shared care models, in which substitution of tasks between doctors and nurses plays a pivotal role [5,8-13]. Nurses want to upgrade their profession. Experiences with the transfer of medical actions from doctors to nurses have demonstrated that the overall quality of care delivered by nurses is equal to the quality of care by physicians, and even better [14-24]. This evidence supports the nurses' challenge to reconsider their task domain and level of expertise, despite limited legal possibilities for taking over medical tasks [25,26,15].

Shared care is described as care delivery in which generalists and specialists work together on the basis of agreements about co-operation, responsibilities and management and that is focused on the patients' needs [13]. It means so-called horizontal as well as downward substitution. Horizontal substitution implies the transfer of care delivery from a more specialised institute to a less specialised organisation, i.e. from hospital to care in the community. Downward substitution means transition of care from a more highly qualified provider to a lower qualified one [27]. Shared care can be considered a drastic change in care delivery and the relationships between doctor and nurse. It implies restructuring tasks, finding

new forms of co-operation and a change of attitude, mutual understanding and trust. To attain a successful change process both parties should have a good understanding of each other's role and position. In this study we explore the nurses' experiences with shared care. The focus is on the implications of these changes for nurses, because of the assumption that they probably have a high impact on their daily practice. Additionally, the physicians' judgement is also taken into account. The research questions are: *What are the nurses' views on horizontal and downward substitution, especially the impediments for its accomplishment, and how do the physicians involved look upon the nurses' view about the biggest impediment?*

Based on the answers to these questions lessons will be drawn for nurses, physicians and managers, concerning future nurse-led shared care.

6.3 The cases: shared care projects

In 1994 a project (A) was started in Maastricht in which a nurse practitioner, specialised in diabetes care, fulfilled a co-ordinating role at patient level. This entailed that a nurse acted as the pivotal care provider. The nurse took over routine medical tasks from the internist working at the outpatient clinic, and performed those tasks during nurse-led consultancy hours in the GP setting. She carried them out in addition to her traditional nursing tasks [28]. Each of the employed nurses worked in several GP solo and group practices. Following this initial project, two highly similar projects were initiated in 1995 and 1996 in North Limburg, which will be further treated as one project (B).

Both projects aimed to improve the quality of care for patients with type 2 diabetes mellitus, without increasing costs. To accomplish this, a multidisciplinary protocol was developed and agreed upon, in which horizontal and vertical substitution of care was the central issue, and the division of tasks and responsibilities of all providers involved was described. The job description of the nurse practitioner is shown in Fig. 1. Beside the nurse practitioners the following care providers were involved: GPs, assistants of GPs, internists, district nurses, staff nurses and dieticians.

Patient care

Anamnesis:	diagnosis related aspects; use of medicine; complaints; material problems well-being; psycho-social problems
Physical examination:	blood pressure; weight; inspection of injection spots, legs and feet
Laboratory results:	blood glucose; HbA1c
Advice, instruction, education:	disease diabetes mellitus; treatment; side effects taking oral antidiabetics; use and injection of insulin adaptation of the dose of medicine within margins use of bloodglucose tester/ insulin pen/ insulin pump/ glucagon selfcare; self-control; selfregulation counselling patient and significant other people surrounding the patient
Other disciplines:	contact; confer with GP or internist in case of complications refer if necessary
Office work:	register patients' results and experiences in files; inform GP and internist
Evaluation:	evaluate treatment plans; inquire if care delivery suits the patient's wishes check agreements as prescribed by the protocol; tailor care

Other tasks

Co-ordination of patient care:	watch over the organisation, co-ordination and continuity of care develop working agreements participate in multidisciplinary care team and meetings
Counselor:	carry out (telephone) consultations by care providers and patients signal shortcomings in care and implications for inservice-training signal shortcomings in care and implications for patient information
Professionalism:	administer clinical lessons and inservice-training administer (group) education programmes on behalf of patients support own expertise; build networks with other nurse practitioners

Fig.1 Job description of the nurse practitioner according to the multidisciplinary protocol

At management level persons mainly occupying key positions participated as delegates from the hospital, the home care agency, the regional association of GPs, the health insurer, and several co-ordinating organisations.

Table 1 shows some striking differences between both projects in the employment of the nurse practitioners, the content of the protocol about downward and horizontal substitution and the target group involved.

Table 1 Striking differences between shared care projects A and B

Aspect	Project A	Project B
<i>Personnel</i>		
Employer nurse practitioner(s)	Hospital 2 nurses	Hospital 1 nurse Home care agency 1 nurse
<i>Protocol</i>		
Downward substitution	Internist to nurse practitioner	Internist/GP to nurse practitioner
Horizontal substitution	Hospital to GP's office	Hospital to GP's office (slightly)
Target group type 2 diabetic patients	Labelled medically stable by the internist	All patients (in principle) visiting the GP's office Subcategory maximal oral medication
Frequency nurse's consultancy hour	Three-monthly 3 times a year	Three-monthly 3 times a year or more
Description content nurse practitioner's patient care activities	Checklist	Overview in detail
Description tasks of diabetes district nurse	General	Overview in detail in case of: -self-control -instruction use of insulin pen -transfer to insulin treatment
Yearly medical check-up	Internist	GP
Location consultancy hour	GP's office	GP's office Subcategory office pharmacist
Development	Care providers primary care Care providers secondary care Regional diabetic patients' union	Care providers primary care Care providers secondary care Protocol project A served as reference point
<i>Privacy</i>		
Protection patients	Paraphrase in patient brochure	Paraphrase in patient brochure Separate appendix
<i>Legal position</i>		
Protection nurse practitioner	Approval protocol by the regional health care inspector Signed agreements of competence by internists	Approval protocol by the regional health care inspector insofar equivalent to protocol project A Separate appendix Signed agreements of competence by GPs
<i>Project management</i>		
Project manager	GP	Internist
Project coordinator	Nursing scientist	-
Group	Small policy-group	Large project group Steering committee Board Care Innovation Experiment North Limburg
<i>Participants</i>		
Patients	74	175
GPs	22	12
Internists-endocrinologists	7	2

6.4 Concepts and methods

6.4.1 Concepts

The first part of the research design consists of a conceptual model, developed on the basis of empirical evidence collected by the evaluation of innovation projects in the early 1990s [29,30]. This model addresses interrelated influencing factors, external or internal, both with a promoting and inhibiting impact. These factors are listed in Table 2.

Table 2 List of external and internal factors

Factors	Description
External	Referring to the broader environment: <ul style="list-style-type: none">- the role of the authorities -such as the government and health insurers-- legislation- societal developments
Internal	Determining change processes: <ul style="list-style-type: none">- Local context referring to the regional circumstances and characteristics:<ul style="list-style-type: none">- culture, i.e. the values subscribed by professionals and organisations, as well as their assumptions and understanding of co-operation alongside a tradition of local innovative activities- power, i.e. the exertion of influence and steering among participants with regard to the activities- structure, i.e. features concerning task-division and co-ordination- Commitment, i.e. the collective bond of the participants involved with the project's aim, the intended changes, means, and mode of operation- Change management, i.e. the goal-oriented steering of the change processes by persons responsible for the (project) activities, mainly the project management

Table 2 was used as a general analytic strategy to gather and analyse data according to the multiple-case study method by Yin [31]. For this the concepts were translated into a series of concrete variables [32].

6.4.2 Methods

Data collection

We conducted a longitudinal study lasting about three years, with periodic data collection during the three project phases, i.e. preparation of the project, implementation and preparation of dissemination. For reasons of triangulation [31], we collected data from several sources, predominantly in-depth interviews and written questionnaires. Also documents and reports such as protocols, minutes and policy pieces were used, in addition to observations of formal group meetings.

The research population consisted of four nurse practitioners, 29 GPs and 9 endocrinologists. The framework of the interviews and questionnaires was largely the same for nurses and doctors and in the same depth. Questions were asked about the occurrence and impact of the listed influencing factors (Table 2), and about how these factors changed over time. The questions mainly addressed the respondents' expectations and experiences regarding their role in care delivery and their co-operation with other care providers, their influence in the project and lessons learned. Most of the interviews took place in the doctors' and nurses' offices and were tape-recorded. Several researchers carried them out. The written questionnaires were sent by post.

Data analysis

In addition to the general strategy (Table 2), the specific analytic strategies of explanation-building and time-series analysis were partially used [31] and combined with straight counting. Explanation-building implies the gradual building of an explanation of the studied phenomenon, while time-series analysis traces changes over time.

We especially looked at the way the nurses dealt with what they considered the inhibiting factors, subsequently compared with the doctors' viewpoint. For this we also used a quantifying method of analysis to clarify the course of the assessed impeding factors over time. For all (selected) respondents within one category of care providers, each negative pronouncement was counted that fitted an item of an influencing factor or its aspects. To limit possible overlap, a maximum score per item was applied. By setting the total score of all the items regarding the inhibiting factor(s) at 100% per phase, in each phase the relative proportion or 'weight' per factor and its aspects could be calculated. This allowed the production of several figures of 'weighted' factors and its components, following the same outline. Each figure shows the course of at least one internal inhibiting factor along all the project phases. Due to the emphasis on their course during the change process, percentages are mentioned with scores being left out. The tool of a so-called sociological calendar has been added to clarify the influence of the main impeding factor even further. This tool portrays descriptions of developments through time and allows them to be condensed and analysed [33].

Our analytical strategies resulted in a cross-case analysis, together with an analysis of each case.

6.5 Results

The nurse practitioners involved mentioned several factors inhibiting the implementation of shared care, which was (partly) agreed on by the GPs. It is apparent, however, that they also saw different advantages and had a clear vision on the continuation of shared care delivery.

6.5.1 Advantages and future vision

Three of the four nurse practitioners noticed improved patient satisfaction and health status, i.e. better glycaemic control. The latter was confirmed by objective research data [34,35]. In addition, it was the nurses' belief that care was more efficiently delivered, while their co-operational relationships with GPs substantially improved, mainly due to better communication among GPs and nurses (see Table 3).

Table 3 Advantages during different phases of projects A and B according to the four nurse practitioners

Advantages	Phase	1	2	3
<i>Efficacy</i>				
Improved care		4	4	4
Rise in number of well regulated type 2 diabetic patients primarily treated by the GP		0	2	4
Better quality of life with participating patients		2	1	0
Improved patient satisfaction of care delivery		0	3	3
Improved insight into the coping of participating patients		2	2	1
Increased continuity and co-ordination of care		1	2	3
Improved professionalism by GPs regarding the treatment of type 2 diabetes		2	2	2
More involvement of the GP with diagnostics and the treatment of type 2 diabetes		2	2	4
Gain of time by the internist		0	0	1

<i>Efficiency</i>			
Improved efficiency of care delivery to not adequately regulated type 2 diabetic patients	1	4	3
Improved efficiency of care delivery to all type 2 diabetic patients	2	2	2
Sufficient availability of education for self-regulation of type 2 diabetic patients	0	1	2
Efficient application of professionalism	0	0	3
<i>Communication</i>			
Good tuning/teamwork between GP and nurse practitioner	0	4	3
Improved tuning/teamwork between GP and internist	0	3	1
Improved communication between GP and internist	0	1	0
Improved exchange of information between the participating providers	0	3	2
Improved referral to the district nurse	0	0	1
Improved referral to the dietician	0	0	2
No unnecessary referrals to the internist in the hospital	3	2	3
More focus on problems in primary care by the internist	0	0	1
Regional collaboration and shared agreements on diabetes care by providers	0	0	1

Furthermore, the nurses emphasised that the applied design of shared care (substitution) should be continued for different reasons: the patients really appreciated it, the clinical parameters were equal or even better than in the past [34-39] and it also challenged their professional aspirations. Especially the downward substitution part was considered quite appealing, because it enabled them to broaden their expertise. The nurse employed by the home care agency stated that without training at the outpatient clinic, she would not have been capable of assisting diabetes patients with the transfer to insulin therapy. All the nurses considered themselves pioneers who succeeded in paving the shared care pathway for their own sake and that of newcomers. Their knowledge and expertise about the medical domain of diabetes care delivery improved considerably, which became underlined by expressions like *“I often noticed I surpassed the GP about insulin therapy.”* In their opinion they earned respect, trust and acceptance by patients and GPs. They learned to feel confident in their new role, which they finally experienced as having outgrown. Consequently they tried to expand it, just as they tried to increase the number of GPs to co-operate with.

In short, the nurses pointed out that the advantages exceeded the possible disadvantages to a great extent. They looked forward to sustain and upgrade the benefits. To keep expertise up-to-date a combination of working in the hospital and in primary care was considered the preferred condition.

6.5.2 Inhibiting factors

Despite the positive and attractive outcomes of shared care, its implementation faced several problems. The nurses mentioned many impediments, which we categorised according to the external and internal factors mentioned in Table 2.

Below we subsequently address these factors, including the one that deserves priority. Conspicuous differences between projects A and B will be highlighted.

6.5.2.1 External factors

Of all the external factors the nurses consistently mentioned Dutch legislation as counteractive. Therefore we only discuss this factor.

Three laws in particular yielded barriers for the transfer of routine medical tasks from a doctor to a nurse. According to the Individual Health Care Professionals Act, nurse practitioners are allowed to carry out all kinds of actions except the so-called actions reserved to doctors. These comprise, for instance, giving an injection to someone. Such reserved action can be performed by a nurse if the doctor signs a written form that confirms the authorisation and ability of the particular nurse to do so every time this circumstance occurs. The nurses

experienced this arrangement as customary in the hospital and cumbersome in the GP's setting.

Furthermore the Medical Treatment Agreement Act implies that the formal treatment relationship between doctor and patient cannot be substituted by a similar medical relationship between nurse and patient, unless the patient agrees. In respect to the patients who gave their consent to participate in the projects, the nurses initially judged that it would be difficult for them to make the substitution. This was, as one nurse stated, because *"the doctor is depicted as an idol who knows everything the best"*.

Finally the Act of Medicine Provision implies that nurses are not allowed to adapt medication or prescribe medication to patients, since this is doctors' territory. According to the developed protocol, this activity was granted in a limited way, but in practice the doctor's approval was always necessary. Repeatedly the GP's assistant acted as an intermediary to get the required prescription signed by the GP. This mode of operation was seen as time-consuming. Compliance with this law turned out to be the hardest.

Notwithstanding these impediments of legislation, the nurse practitioners indicated that they learned to cope with the circumstances. In their opinion they gradually became more competent, although the limitations did not remove the threat of sanction in case a calamity would occur.

6.5.2.2 Internal factors

When looking at the proportional distribution over time of the impeding factors concerning change management, commitment and local context, the impeding influence of the change management was continuously judged bottom in comparison to the hindering influence of the other internal factors (Fig. 2).

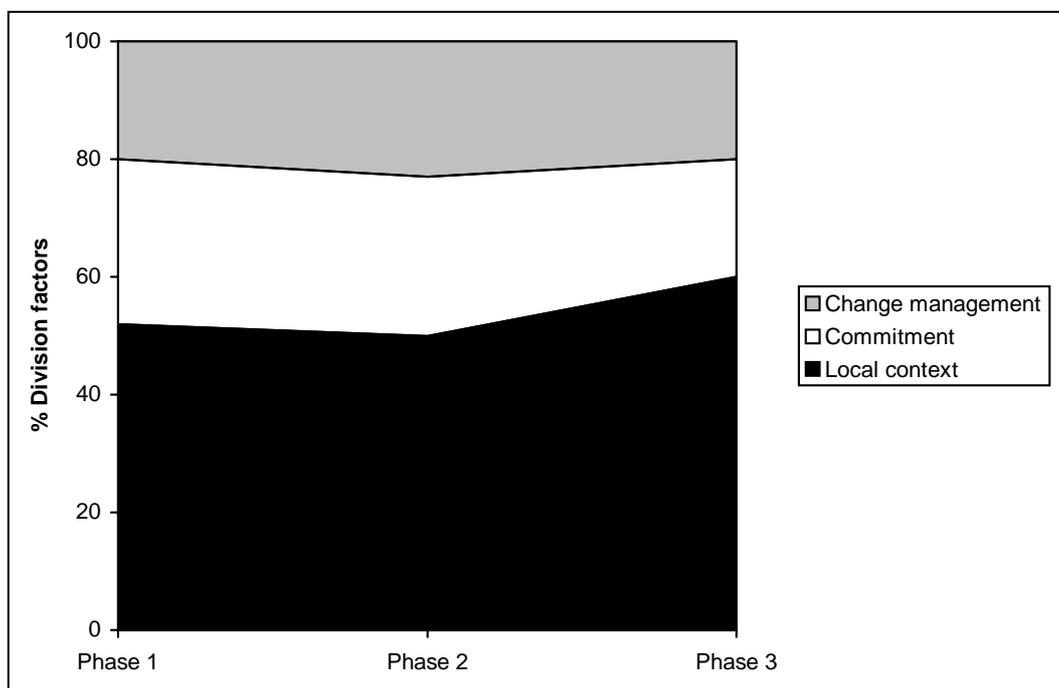


Fig.2 Course inhibiting factors projects A and B according to nurse practitioners

Especially the change strategies and tactics of the project management were commented upon. The nurse practitioners reported that they had to figure out a lot of things by themselves. They complained about insufficient provision of information to the participating care providers, lack of support, communication, preconditions and structure, apart from noncommittal agreements.

Initially the problems about commitment appeared to be more substantial, but decreased slightly to the same size as the previous factor, i.e. 20% of the total of impediments as experienced by the nurses. In the beginning the nurses complained about certain disagreements among the participants about the downward substitution by means of a protocol. In their opinion, physicians in the protocol group should have had better consultation with their colleagues concerning this matter. In project A discussions were sometimes experienced as an uphill battle, while in project B agreements were considered unclear. Consequently several participants opposed progress. In addition nurses reported that GPs were reluctant to refer diabetes patients to them who were not included in the project. Other GPs started to consider them as a substitute for the internist, which exceeded the threshold of their ability. Particularly in project B nurses had to explain the mode of operation and to motivate care providers. The statement “*I felt like an intruder*” exemplified this. Communication with a number of physicians was troublesome, although there were differences due to attitude and commitment. GPs turned out to be swamped with work and looked for a solution, which would reduce time investment and prevent excess expenditures. Their interest in refresher courses about diabetes persistently fell short, while internists remained somewhat reluctant to refer type 2 diabetes patients back to GPs. Ultimately the nurses felt uncertain about the genuine willingness of the medical discipline to share diabetes care.

Obviously, in both projects A and B the local context was the most prominent inhibiting factor in all project phases. Its impeding influence nearly remained at the same level during the first two phases and steadily increased afterwards up to 60%. This means that of the total package of hindrances the nurses observed, the proportion of the local context showed an upward trend. Its percentage increased although the overall picture towards the end entailed fewer impediments than before.

Local context in detail

The role of the distinguished local context aspects culture, power and structure over time is shown in Fig. 3.

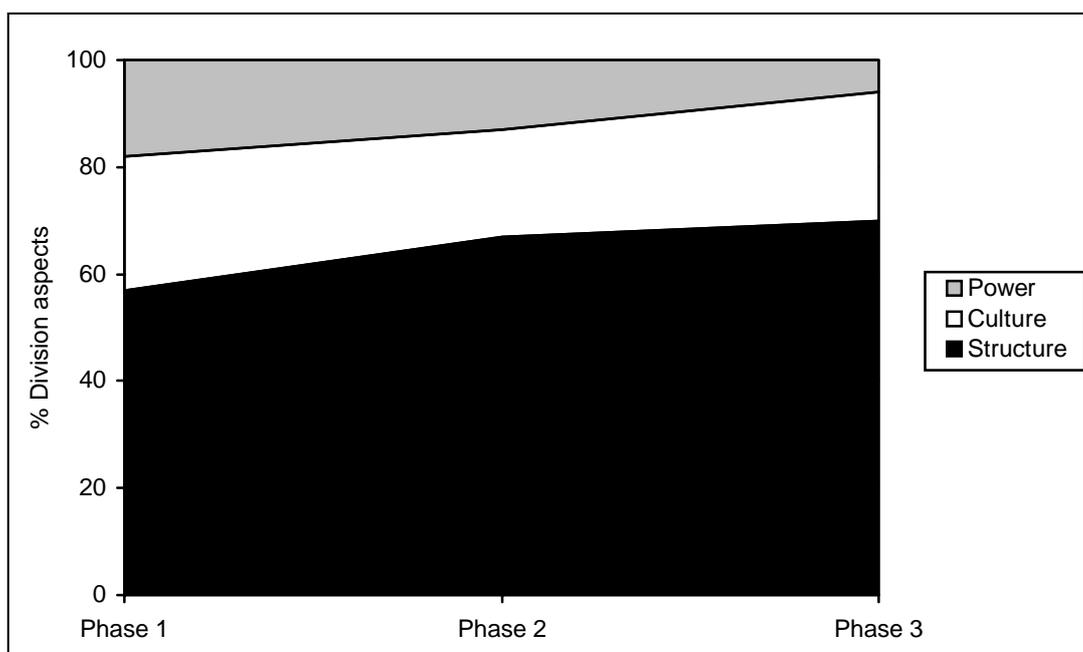


Fig. 3 Course inhibiting factor local context projects A and B according to nurse practitioners

Fig. 3 clearly demonstrates that the extent of the cultural impediments hardly changes over time, with a final share of approximately 24% of all the impediments experienced by the nurses. The actual content of cultural impediments, however, sometimes differed from the nurses' initial expectations. For instance, the GPs were less suspicious and the patients were more accepting their role than they expected themselves. Notwithstanding that, the nurses' belief was that the physicians had constantly to be encouraged to change their attitude in favour of transferring part of their medical tasks to them. Solo performance, opposition and insufficient referral of diabetes patients to the GPs' offices from internists, remained matters to worry about.

With regard to the aspect of power, its hindering impact decreased to 6% of all impediments mentioned by the nurses (Fig. 3). The data reveal initial problems of rivalry, lack of partnership, too much power display and difficulties to settle matters. Because of these problems, the projects were delayed. Power problems were much more prominent in project A, compared to project B. For instance, the first major problem in project A was the filling of the two posts of nurse practitioner. The question was what organisation would be allowed to deliver the persons with the expertise needed. This evoked a considerable power play between the hospital and the home care agency. Both claimed the position for their own nurses. After time consuming negotiations a compromise was achieved: the provision of two nurses by the hospital for this project and a similar arrangement with the home care agency in respect to a project for another target population, which would start later on. Other difficulties arose about restricted patient selection at the outpatient clinic, which were solved by arranging broader inclusion criteria. The bottlenecks that persisted were an ambivalent attitude of physicians about the nurses' authority and capability and confined referral by some internists of diabetes patients to the GPs' offices.

According to the nurses structure was the biggest impediment in each phase. Its proportion increased during the project course and finally reached the level of 70% of all notified inhibiting factors (Fig. 3). Examples of impeding structure were the participants' lack of financial means to meet agreements and personnel barriers to get started, besides the mutual unfamiliarity of care providers with each other's work. Also the lacking educational structure for the nurses to have medical in service training to upgrade their expertise played a role, as did too high a workload by GPs and the absence of an information technology system. However, these aspects were dwarfed by the impact of hindrances in the area of patient-centred care delivery, task performance by care providers, joint care delivery and co-operation between participants.

Regarding the regular patient-centred care delivery at the start of both projects, hindrances were especially observed at the outpatient clinic (Table 4).

Table 4 Specialised diabetes nurses' perceptions of problems about regular diabetes care delivery in phase 1 (1996-1997)

Structure	Problem identification
Secondary care (out - patient clinic)	(1) Location: turbulent and overwhelmed by diabetic patients (2) Patient visits endocrinologist: 10 min on the average (3) Patient visits specialised diabetes nurse: (a) predominantly only patients indicated for transfer to insulin therapy (b) education repeatedly limited to (not even) once a year because of lack of time, high work pace and available jobs on the strength (4) <i>Referral: the specialised diabetes nurse does not refer to the home care agency for education purposes because of supposed lack of expertise (project B)</i>
Primary care (GPs)	<i>Referral: referral by GPs to caregivers with the necessary expertise is frequently not done despite lack of knowledge about diabetes and improper co-ordination of care delivery (project B)</i>

Commonalities of projects A and B are represented in upright script, striking differences in italics

In a nutshell this situation was denominated as “*The one with a big mouth is the first in the row*”. At that time the nurses involved considered care delivery as severely restrained, also because of the patients’ role. They noticed that the latter showed not to have the knowledge, self-management, and compliance needed to achieve proper care results. Later on they also mentioned the patients’ reluctance to visit the dietician and acknowledged that patients’ agreeing to more elaborate education to change their lifestyle might have been awkward for a number of them.

The most remarkable impediments can be classified in the dimensions horizontal and downward substitution (Table 5).

Table 5 Nurse practitioners' perceptions of problems about substitution of care in projects A and B

Structure	Preparation (phase 1 1996-1997)	Implementation (phase 2 1997-1999)	Preparation of dissemination (phase 3 1999-2000)
Dimensions			
Horizontal substitution	<p>(1) Expectation projects</p> <p>(a) Anxiety to be able to convince GPs of their excess value</p> <p>(2) <i>Experience protocol group (project B)</i></p> <p>(a) <i>Few and unclear agreements about division of tasks, the settlement of matters and the provision of care providers with indispensable information</i></p> <p>(b) <i>No involvement of the dietician</i></p> <p>(c) <i>To work with a protocol is only common practice in one GP's office</i></p>	<p>(1) General experience projects</p> <p>(a) Outpatient clinic is still overwhelmed by patients</p> <p>(2) <i>Experience protocol group (project A)</i></p> <p>(a) <i>Dismissed too soon to evaluate application of the multidisciplinary protocol</i></p> <p>(3) <i>Experience project (project B)</i></p> <p>(a) <i>Practical things are not settled and too little information is given to physicians about application of the protocol</i></p> <p>(b) <i>No deputy is arranged for</i></p> <p>(c) <i>Reachability by telephone is inadequate</i></p> <p>(d) <i>There is a limit to the efforts to change the patient's life-style</i></p>	<p>(1) General expectation projects</p> <p>(a) Substantial change will occur at the outpatient clinic in case of further implementation</p> <p>(2) <i>Experience projects</i></p> <p>(a) <i>Strict separation is needed of the job in the hospital and the job as nurse practitioner, also concerning workplace; the problem of appointment and training of less experienced nurses as nurse practitioner needs to be tackled (project A)</i></p> <p>(b) <i>Arrangement of substitute and sufficient attainability is necessary (project B)</i></p>
Downward substitution	<p>(1) Expectation projects</p> <p>(a) Anxiety for enlargement task domain by medical matters like counselling patients and GPs equivalent to internist</p> <p>(2) <i>Experience protocol group (project B)</i></p> <p>(a) <i>Few and unclear agreements about division of tasks</i></p>	<p>(1) Experience projects</p> <p>(a) Authority and capability remains unclear and the multidisciplinary protocol does not cover this sufficiently; seeing GPs' patients outside the project is insufficiently arranged for</p> <p>(b) <i>More can be learned by each nurse and GP from the discussion after the nurse's consultancy hour, which needs further structure (project A)</i></p> <p>(c) <i>Hard to cope with are (project B):</i></p> <p>(c1) <i>Difficult communication with GPs and some internists</i></p> <p>(c2) <i>Bearing the responsibility to give advice to the GP equivalent to the internist</i></p> <p>(c3) <i>Feeling too responsible for care delivery</i></p> <p>(c4) <i>Feeling like monitoring GPs</i></p> <p>(c5) <i>The involvement of too many caregivers whose tasks partly overlap while continuity of care is questionable</i></p>	<p>(1) Experience projects</p> <p>(a) Asked for (<i>more or less demanded -project A-</i>) are:</p> <p>(a1) Clear arrangements about the attained level of authority and capability. Seeing GPs' patients outside the project has speeded up self-reliance; more responsibility has been taken than before; now the job description (Fig. 1) needs revision</p> <p>(a2) Tuning with alternative consultancy hours</p> <p>(a3) Expansion of participating GPs</p> <p>(a4) Enlargement of target group to all diabetic patients</p> <p>(a5) Structural (<i>multidisciplinary -project B-</i>) confer</p> <p>(a6) Clear working agreements with physicians (<i>medical feedback by one internist-endocrinologist -project A-</i>) and dieticians -no waiting lists-</p> <p>(a7) Dealing with bureaucracy</p> <p>(a8) (<i>Formal</i>) settling the issue of signaling co-morbidity during anamnesis and the future task of the GP's assistant and practical nurse (project A)</p> <p>(a9) <i>More tuning of the GPs' patient activities to theirs due to still inert behaviour by a number of GPs (project B)</i></p>

Commonalities of projects A and B are represented in upright script, striking differences in italics

Table 5 shows that the nurse practitioners agreed more on the problems they experienced concerning downward substitution than on their problems about horizontal

substitution. Comparing the nurses' perceptions over time on substitution, they indicate that the nurses move from complaining about unmet preconditions and feeling anxious to take responsibility for carrying out medical tasks from doctors, toward feeling and taking full responsibility for their job and strongly advising what should change to solve the remaining problems in structuring substitution of care delivery. Although they had to contend with diverse situational difficulties in primary care, the data indicate that the nurses' socialisation process succeeded. They managed to internalise the values and actions inherent to the profession of a nurse practitioner. Starting off rather anxiously, they finally became eager to take full responsibility for their job and to fight for its full recognition by the medical profession.

The physicians' view on structure

Corresponding to the nurses' views, the doctors also considered the local context a more impeding factor than commitment and change management. Remarkable is that the internists judged culture a more hindering factor than the GPs, while the latter apparently considered power more impeding. Notwithstanding that, both GPs and internists constantly viewed structure as the most impeding factor, just like the nurses did, yet the final score of 74% by the GPs was neither surpassed by the internists nor the nurses (Figs. 3-5).

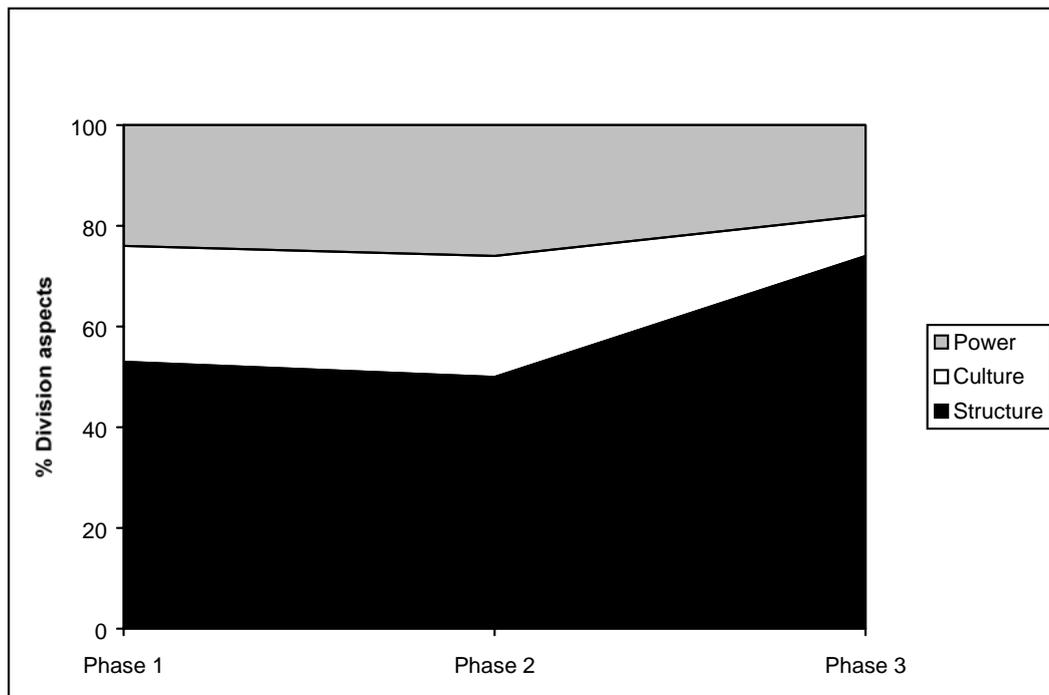


Fig. 4 Course inhibiting factor local context projects A and B according to GPs

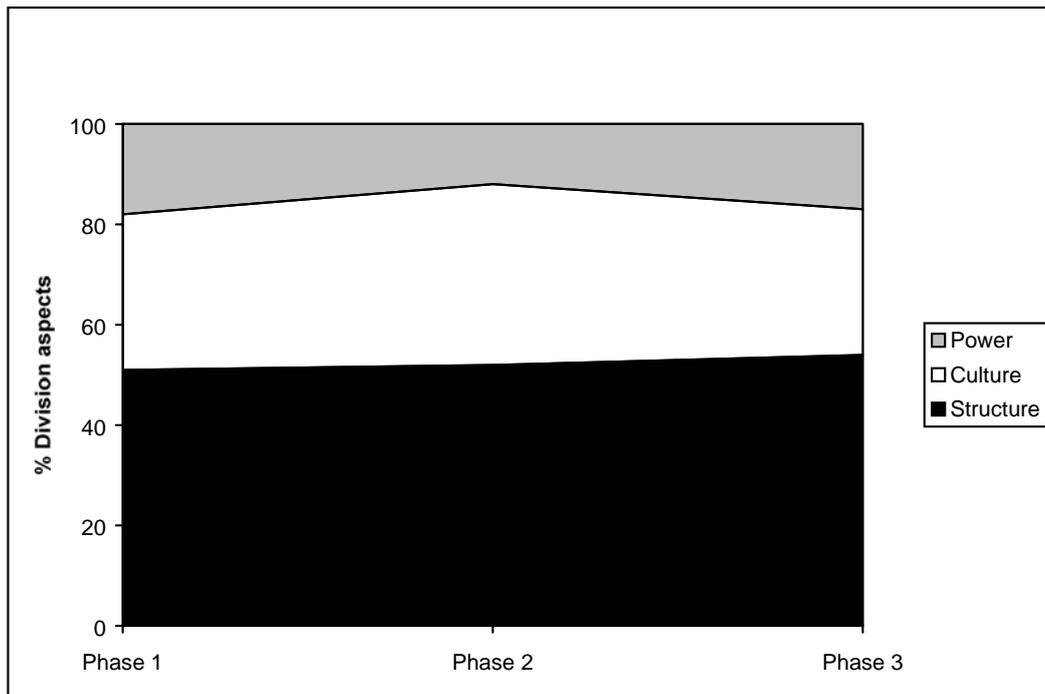


Fig. 5 Course inhibiting factor local context projects A and B according to internists

Generally speaking, the doctors mentioned the same hindering aspects of structure as the nurses, although they emphasized task performance and task division more than the nurses.

Regarding the horizontal substitution (Table 5), the GPs initially found themselves burdened by the new task division within the project. In their opinion, the outpatient clinic would experience some relief, while their workload would increase, requiring higher time investments, without receiving additional revenues for that. In addition, to be able to adequately take over part of the internists' tasks they missed a supportive system, which could guarantee better quality of diabetes care, better glycaemic control and education. Also, they were reticent about the nurse's expertise and found it difficult to work according to a protocol and to maintain a strong attitude toward non-compliant patients. In contrast with their complaints about the unbalanced task division between the outpatient clinic and themselves, they were reticent to send patients to the endocrinologists at the outpatient clinic, since they were convinced that those patients would not have been returned. Later on, the GPs expressed their conviction that the projects resulted in improved quality of care in comparison to the care at the outpatient clinic by the endocrinologist. Their workload, however, had not been decreased in their opinion. Thus, they still complained they were overtaxed and indicated that secondary care wanted to transfer an increasing number of diabetes patients type 2 to primary care, to get rid of the inherent high workload caused by the increase of diabetes patients. Again the need of supportive structures was stressed, as one GP said: *"If I want to keep all diabetes patients in my office, I need further support."* Also the internists commented upon the part of horizontal substitution. They complained that their consultancy hours were overcrowded. For instance one of them reported about his consultancy hour, *"Every once in a while I look people straightaway outside my office. I cannot offer permanent or sufficient education during three-monthly visits of ten minutes."* The capacity of the specialised diabetes nurses at the outpatient clinic to do so was also not sufficient. The internists were not able to carry out a complete physical examination during every consultancy hour. In one hospital the interval between two subsequent visits lengthened. Measures were considered necessary.

They expected things to improve because of the work of the nurse practitioner, who was allowed much longer consultancy hours.

Regarding downward substitution, a number of GPs acknowledged that they fell short in respect of reading and working according to protocols, although they supported clear agreements and a better division of tasks. GPs rarely educated their patients about diabetes. Almost all were unfamiliar with the transfer to insulin therapy. They wanted to improve the situation and physically examine their diabetes patients more thoroughly than some internists could do. On the other hand the internists commented on the GPs' expertise about diabetic medicine in general and in particular, remarking that the GPs lacked an appropriate attitude towards carefully examining diabetes patients, seeing them regularly and checking on their coming back.

The nurse practitioner dealt with the organisation of diabetes care delivery and sweetened the GPs' pill of managing the huge number of chronically ill patients who needed counselling, besides diagnostics and therapy. Nevertheless, it seemed "*that the more you offer as GP, the more you are asked to provide*". Additionally, "*About insulin I almost know nothing. It is her job all day long. That knowledge and feeling you should not compare.*" The GPs considered the transfer to insulin therapy laborious, but retained their feeling of responsibility for the course of their patients' diabetes. However, their overview of the entire group of diabetes patients became less in one of the projects.

6.6 Lessons

From the nurses' viewpoint a number of lessons can be drawn from the outcome of the research for nurses in particular, but also for physicians and managers. The most important lesson is a general one: substitution works. Both projects have shown that the diabetes patients' demand for high quality of care delivery can be served very well by nurse-led shared care. It should be recommended more broadly and strongly. But, as the data reveal, a number of pitfalls also have to be taken into account, some of which are hardly transparent. For instance, most strategies and tactics to use power involve untransparency [40]. Our outcome is in line with this, in that the impeding influence of power is noted, albeit at a modest scale.

On the basis of this general lesson, further lessons for nurses, physicians and managers can be drawn on how to act for the sake of promoting, developing and implementing shared care.

Nurses

General lessons

- Diabetes nurses have to keep on advocating horizontal and downward substitution of care delivery to diabetes patients as long as it cannot be taken for granted that other disciplines would fight for the nurses' professional aspirations.
- To be successful, nurses need to oversee the overall structure of the initiative and to continuously act upon impediments about structure. Especially constraints in patient-centred care delivery, which can lead to the patients' lack of sufficient knowledge, self-management and compliance, have to be dealt with. For this the triptych of task performance by care providers, joint care delivery and co-operation between participants respectively, has to be addressed.
- The task performance and task division in the frame of downward substitution is extremely important. Nurses have to acknowledge that substitution of tasks from a doctor to a nurse cannot be enforced. The participants should have time to get accustomed to this quite radical change. During this process nurses need to persevere in establishing formal committal agreements about their authority and capability, particularly when external

factors, such as legislation, put up barriers. The agreements about the target group required by protocol, the division of tasks, the mode of operation and communication, especially with physicians, need to be monitored. These arrangements should encompass feedback arrangements by medical specialists to enhance the nurses' task performance.

- Mainly in the beginning, nurses have to tackle hindering influences of culture, particularly resistance regarding downward substitution, and power, visible in rivalry and power play.
- Nurses have to emphasise and check the fulfilment of necessary practical conditions, such as supportive structures, beforehand. Things have to run smoothly from the start in accordance with their needs.
- Despite all possible arrangements, nurses have to be aware that they cannot operate as a complete substitute for the doctor. The medical profession will permanently limit and dominate their autonomy [41,42]. This means that nurse practitioners specialised in diabetes care are strongly recommended to bring full shared care with physicians into action.

Lessons about personal qualities

Diabetes nurses involved in nurse-led shared care activities should possess a pioneer spirit to face unexpected developments and impediments, besides passion, drive, persistence and patience. Availability of enough countervailing power in their communication with physicians and change management is considered a prerequisite.

Lessons about expertise

Nurse-led shared diabetes care also needs nurses with sufficient expertise to counteract attitudes like waiting to see which way the wind blows. Expertise about insulin therapy, preferably acquired at the outpatient clinic, is necessary and has to be kept up-to-date. For this a combination of working at the outpatient clinic and in primary care is advocated, in addition to extra training about co-morbidity.

Physicians

- The main lesson for GPs and internists implies that persisting in complaining about workload does not solve the problem at hand, changing attitudes toward downward substitution probably will. Physicians have to acknowledge that nurses can improve quality of diabetes care delivery, especially with moderately and well-regulated diabetes patients.
- Physicians should give the qualified and experienced nurse practitioner enough elbowroom [43] and thus responsibility, to take over (routine) medical tasks for diabetes patients specified by protocol. In case the medical situation of the patient goes beyond protocol or the nurse's expertise, an internist-endocrinologist should provide medical feedback as a standard procedure.
- In practice, a conceptual shared care framework is needed that makes the division of tasks between physicians and nurses more obligatory and reckons with differences in complexity of the target group. This involves meeting the challenge of true collaborative working [44-46].

Managers

- The most important lesson for managers entails that they continuously have to deal with the extremely inhibiting impact of structure in the case of nurse-led shared care projects, especially in the beginning and towards the end. Change management, particularly project management, should carefully plan and apply strategies and tactics that at least undo this impeding influence.
- Management has to concentrate on the impediments of culture and power simultaneously and on possible interactions with the structure component [30,47]. One inevitable

impediment to be tackled is the lower status of nurse practitioners in comparison to doctors. In this context management has to deal with the fact that nursing, traditionally looked upon as caring, is a predominantly female occupation with limited or no autonomy [42,48].

- The nurses' task performance needs to be clearly specified by protocol from the start, and regularly clarified thereafter. This also appeals to the target group and its size.
- Participating physicians need to experience immediate alleviation of their workload by the transfer of tasks to nurse practitioners. Therefore it is necessary that the transfer concern a substantial number of their patients.
- Communication should not be confined to superficial talking or discussion. From the outset onward dialogue needs to be provoked during conversations and multidisciplinary team building should be stressed [4,49,50].

6.7 Conclusion

This study emphasised the importance of full acknowledgement of the nurses' viewpoint, whenever nurse-led shared care practice is the issue. This practice is ready for dissemination on behalf of improvement of care delivery to a large target group of diabetes patients and other chronically ill people. The time when the nursing discipline received little recognition of their autonomy and authority needs to be left in the past. To strengthen this recognition, the nursing discipline has to continuously stimulate and push shared care working, not only by motivating doctors and managers but also by lobbying governments to create favourable conditions for substitution. And, although physicians gradually become aware of the advantages of shared care, lots of things still have to be done in this respect.

Nevertheless nurses should realise that, because of the traditional division of tasks between the medical and nursing profession, they will never achieve complete autonomy and authority to carry out medical tasks. For, as Freidson [41] already argued, their task performance will always be a derivation from medical work. It is a matter of finding the optimal balance between the symbiotic interdependency of nurses and doctors. This is the present-day challenge of shared care. To meet this challenge the results of this study may help clarify the difficult issues to be tackled by nurses, physicians, and managers.

In spite of the methodological limitation of the application of simple time-series analysis, our study has shown that a web of impediments plays a role. On the one hand they can be identified and properly managed, on the other they turn out to be inextricable and elusive and therefore difficult to investigate and manage. Nonetheless the factor structure appeared to prevail and therefore requires close attention, especially the part of formal agreements by protocol that should be sufficiently clear and worked out.

Concerning further research it is our opinion that research on shared care processes should more and more focus on the relationships and interactions between the impeding factors. Probably, these will not only change over time, but also vary between different situations and circumstances. Disentangling this complex issue will not only contribute to a better understanding of impediments to shared care, but can also result in more detailed recommendations, tailored to the situation and needs of specific projects or situations.

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References

- [1] McCance TV, McKenna HP, Boore JRP. Caring: dealing with a difficult concept. *International Journal of Nursing Studies* 1997;34(4):241-48.
- [2] Juch H, Groenewoud S, Uffelen S van, Nas C. Van transmuraal naar integraal. Ontwikkelingen en achtergronden van transmurale samenwerking in de Nederlandse gezondheidszorg. (From Integrated to Integral.) Leusden: Vereniging HEAD-Deloitte & Touche, 2000.
- [3] Kravitz RL, Melnikow J. Engaging patients in medical decision making. *British Medical Journal* 2001;323:584-85.
- [4] Richards A, Carley J, Jenkins-Clarke S, Richards DA. Skill mix between nurses and doctors working in primary care-delegation or allocation: a review of the literature. *International Journal of Nursing Studies* 2000;37:185-97.
- [5] Ministry of Welfare, Health and Culture. Chronisch-ziekenbeleid. Chronische patiënten niet buiten spel. (Policy on chronically ill. No offside for chronically ill patients). 's Gravenhage: Sdu Uitgeverij Plantijnstraat, 1991.
- [6] Rutten GEHM, Verhoeven S, Heine RJ, Grauw WJC de, Cromme PVM, Reenders K, Ballegooye E van, Wiersma Tj. NHG-Standaard Diabetes Mellitus Type 2 (eerste herziening). (NHG-Standard Diabetes Mellitus Type 2 (first revision)). *Huisarts & Wetenschap* 1999;42(2):67-84.
- [7] Spreeuwenberg C, Eijkelberg I. Keuzen, knelpunten en dilemma's in de zorg. (Choices, bottlenecks and quandaries in care). In: Bos GAM van den, Danner SA, Haan RJ de, Schadé E, editors. *Chronisch zieken en gezondheidszorg. (Chronically ill and health care)*. Maarssen: Elsevier gezondheidszorg, 2000:73-87.
- [8] Ministry of Welfare, Health and Culture-Committee Modernising Curative Care. Gedeelde zorg: betere zorg. (Shared care: better care). 's Gravenhage: Sdu Publisher, 1994.
- [9] National Committee on the Chronically Ill. Advies gespecialiseerde verpleegkundige zorg voor chronisch zieken. (Advise specialised nursing care on chronically ill). Zoetermeer: NCCZ, 1995.
- [10] Hardy B, Mur-Veeman I, Steenbergen M, Wistow G. Inter-agency services in England and the Netherlands, a comparative study of integrated care development and delivery. *Health Policy* 1999;48:87-105.
- [11] Ministry of Health, Welfare and Sports. Beweging in de zorg. Krachten en ontwikkelingen binnen het stelsel. (Movement in care. Forces and developments within the system). Rijswijk: RS Publisher bv, 2000.
- [12] Ministry of Health, Welfare and Sports. Zorgnota 2001. (Care report 2001). 's Gravenhage: Sdu Publisher, 2000.
- [13] National Council for Public Health, National Board for Hospital Facilities. Transmurale somatische zorg. Advies van de Nationale Raad voor de Volksgezondheid en het College voor ziekenhuisvoorzieningen (Integrated and continuing somatic care. Advice of the National Council for Public Health and the National Board for Hospital Facilities). Zoetermeer: NRV, 1995.
- [14] McKee M, Lessof L. Nurse and doctor: Whose task is it anyway? In: Robinson J, Gray A, Elkan R, editors. *Policy Issues in Nursing*. Milton Keynes: Open University Press, 1992:60-7.
- [15] Algera M, Scholten ChM. Taakverschuiving arts richting verpleegkundige. Hoofdrapport. (Transfer of tasks from physician to nurse. Main report). Utrecht: LCVV, 1998.
- [16] Ijzerman M, Scholten ChM. Taakverschuiving arts richting verpleegkundige II; terugdraaien, gedogen of formaliseren? (Transfer of tasks from physician to nurse II). Utrecht: LCVV, 1998.
- [17] Denis-Thissen E, Frederix M. Rol van de diabetesverpleegkundige: nu en in de toekomst. (Role of the diabetes nurse: now and in the future). In: Bilo HJG, Nunen F van, Ballegooye E van,

- Meyboom-de Jong B, Ubink-Veltmaat LJ, editors. *Transmurale zorgvormen van diabetes mellitus. Een verkenning van de situatie anno 2000. (Integrated care on diabetes mellitus. An exploration of the situation in the year 2000)*. Zwolle: Isala klinieken, 2000:98-113.
- [18] Salvage J. The New Nursing: Empowering patients or empowering nurses? In: Robinson J, Gray A, Elkan R, editors. *Policy Issues in Nursing*. Milton Keynes: Open University Press, 1992:9-23.
- [19] Torn A, McNichol E. A qualitative study utilizing a focus group to explore the role and concept of the nurse practitioner. *Journal of Advanced Nursing* 1998;27:1202-11.
- [20] Shum C, Humphreys A, Wheeler D, Cochrane M, Skoda S, Clement S. Nurse management of patients with minor illnesses in general practice: multicentre, randomised controlled trial. *British Medical Journal* 2000;320:1038-43.
- [21] Kinnersley P, Anderson E, Parry K, Clement J, Archard L, Turton P, Stainthorpe A, Fraser A, Butler CC, Rogers C. Randomised controlled trial of nurse practitioner versus general practitioner care for patients requesting "same day" consultations in primary care. *British Medical Journal* 2000;320:1043-48.
- [22] Venning P, Durie A, Roland M, Roberts C, Leese B. Randomised controlled trial comparing cost effectiveness of general practitioners and nurse practitioners in primary care. *British Medical Journal* 2000;320:1048-53.
- [23] Iliffe S. Nursing and the future of primary care. *British Medical Journal* 2000;320:1020-21.
- [24] Vrijhoef HJM, Diederiks JPM, Spreeuwenberg C. Effects on the quality of care for patients with NIDDM or COPD when the specialised nurse has a central role: a literature review. *Patient Education and Counseling* 2000;41:243-50.
- [25] Maanen HMTh van. Nursing in transition: an analysis of the state of the art in relation to the conditions of practice and society's expectations. *Journal of Advanced Nursing* 1990;15: 914-24.
- [26] Bamford M. Health Careers in the Twenty-first Century. In: Morton-Cooper A, Bamford M, editors. *Excellence in Health Care Management*. Cambridge: Blackwell Science, 1997:20-44.
- [27] Spreeuwenberg C. (Net)werken voor chronisch zieken. ((Net)works for chronically ill). Maastricht: Rijksuniversiteit Limburg, 1994 (Inaugural lecture).
- [28] Frederix M, Spreeuwenberg C. Naar een centrale rol voor de verpleegkundige. (Towards a central role for the nurse). *TVZ Tijdschrift voor Verpleegkundigen* 1995;6:172-75.
- [29] Raak A van, Jongerius-de Gier G, Massop J, Mur-Veeman I. Brug tussen gisteren en morgen. Zorgvernieuwing als veranderingsstrategie voor een betere zorg in de toekomst. Evaluatie 'Programma Zorgvernieuwingprojecten Thuiszorg van WVC'. Eindrapportage. (Bridge between yesterday and tomorrow. Innovative care as change strategy to achieve improved care in future. Evaluation 'Programme Innovative care projects on primary care by WVC'. Final report). Maastricht: Rijksuniversiteit Limburg, 1993.
- [30] Eijkelberg I, Mur-Veeman IM. Veranderingsprocessen in de transmurale zorg. (Change processes in shared care). In: Spreeuwenberg C, Pop P, Beusmans GHMI, Winkens RAG, Zutphen H van, editors. *Handboek transmurale zorg. (Textbook on integrated care)*. Maarssen: Elsevier gezondheidszorg, 2000:37-66.
- [31] Yin RK. *Case Study Research. Design and Methods*. Applied Social Research Methods Series, vol 5, 2nd edition. London: SAGE Publications, 1994.
- [32] Raak A van, Mur-Veeman I, Paulus ATG, Merode GG van. WIZDIZ-99 Diagnose-instrument Integrale Zorg. (WIZDIZ-99 Diagnosis-instrument Integrated Care). Maastricht: Werkgroep Integrale Zorg Capaciteitsgroep BEOZ Universiteit Maastricht, 1999.
- [33] Light DL Jr. The Sociological Calendar: An Analytic Tool for Fieldwork Applied to Medical and Psychiatric Training. *American Journal of Sociology* 1975;80(5):1145-64.

- [34] Vrijhoef HJM, Diederiks JPM, Spreeuwenberg C, Wolffenbuttel BHR. Substitution model with central role for nurse specialist is justified in the care for stable type 2 diabetic outpatients. *Journal of Advanced Nursing* 2001;36(4):546-56.
- [35] Vrijhoef HJM, Diederiks JPM, Spreeuwenberg C, Wolffenbuttel BHR, Wilderen LJGP van. The nurse specialist as main care-provider for patients with type 2 diabetes in a primary care setting: effects on patient outcomes. *International Journal of Nursing Studies* 2002;39:441-51.
- [36] Eijkelberg IMJG, Vrijhoef HJM, Spreeuwenberg C, Mur-Veeman IM, Diederiks JPM. Bevindingen van patiënten over transmurale diabeteszorg: een confrontatie tussen proces- en effectevaluatie. (Experiences of patients with shared diabetes care: a confrontation between process- and effect evaluation). *Tsg* 2000;78(2):19-20.
- [37] Wolffenbuttel B, Schelven R van, Frederix M, Jöbses B, Vrijhoef B, Eijkelberg I, Spreeuwenberg C. Het Matador-project (Maastrichts transmurale diabetesorganisatie). (The Matador-project (Maastricht integrated care diabetes organisation)). In: Bilo HJG, Nunen F van, Ballegooie E van, Meyboom-de Jong B, Ubink-Veltmaat LJ, editors. *Transmurale zorgvormen van diabetes mellitus. Een verkenning van de situatie anno 2000. (Integrated care on diabetes mellitus. An exploration of the situation in the year 2000)*. Zwolle: Isala klinieken, 2000:204-19.
- [38] Wilderen L van, Eijkelberg I, Vrijhoef B, Keijzer F, Spreeuwenberg C, Paulus A, Raak A van. Transmurale diabeteszorg in Noord-Limburg. (Shared care in Northern Limburg). In: Bilo HJG, Nunen F van, Ballegooie E van, Meyboom-de Jong B, Ubink-Veltmaat LJ, editors. *Transmurale zorgvormen van diabetes mellitus. Een verkenning van de situatie anno 2000. (Integrated care on diabetes mellitus. An exploration of the situation in the year 2000)*. Zwolle: Isala klinieken, 2000:158-77.
- [39] Vrijhoef HJM, Spreeuwenberg C, Eijkelberg IMJG, Wolffenbuttel BHR, Merode GG van. Adoption of disease management model for diabetes in region of Maastricht. *British Medical Journal* 2001;323:983-85.
- [40] Pfeffer J. *Power in Organizations*. London: Pitman, 1981.
- [41] Freidson E. *Profession of medicine: a study of the sociology of applied knowledge*. New York: Harper & Row, 1970.
- [42] Witz A. The challenge of nursing. In: Gabe J, Kelleher D, Williams G, editors. *Challenging medicine*. London: Routledge, 1994:23-45.
- [43] Barton TD, Thome R, Hoptroff M. The nurse practitioner: redefining occupational boundaries? *International Journal of Nursing Studies* 1999;36:57-63.
- [44] Zeldin T. How work can be made less frustrating and conversation less boring. *British Medical Journal* 1999;319:1633-35.
- [45] Davies C. Getting health professionals to work together. *British Medical Journal* 2000;320:1021-22.
- [46] Wagner EH. The role of patient care teams in chronic disease management. *British Medical Journal* 2000;320:569-72.
- [47] Mur-Veeman I, Eijkelberg I, Spreeuwenberg C. How to manage the implementation of shared care. A discussion of the role of power, culture and structure in the development of shared care arrangements. *Journal of Management in Medicine* 2001;15(2):142-55.
- [48] Hasenfeld Y. *Human services as complex organizations*. London: Sage Publications, 1992.
- [49] Senge PM. *The Fifth Discipline. The Art & Practice of the Learning Organization*. New York: Currency Doubleday, 1994.
- [50] Eijkelberg IMJG, Spreeuwenberg C, Mur-Veeman IM, Wolffenbuttel BHR. From shared care to disease management: key-influencing factors. *International Journal of Integrated Care* 2001;1(2):[www.roquade.nl/IntegratedCare].

Chapter 7

**Patient focus groups about nurse-led shared care for the
chronically ill**

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7.1 Abstract

Traditional care offered to chronically ill people does not succeed in bridging the gap between primary and secondary care in a way that suits chronic patients' needs. So-called nurse-led shared care may offer a solution, in which a specialised nurse practitioner plays a co-ordinating role at patient level. In this article two nurse-led shared care models for patients with diabetes mellitus type 2 and chronic obstructive pulmonary disease (COPD) are looked upon through the patient's eye. Joint focus groups are conducted in which patients judge the models according to their experiences and indicate the importance they attribute to quality issues. Most of them experience the shared care models as positive and prefer them compared to traditional care. The main quality aspect concerns the provision of information, although its performance needs improvement. The outcome indicates that the qualitative method of patient focus groups should become standard procedure in evaluating the shared care, supported by quantitative means.

Keywords: focus groups, shared care, nurse practitioner, chronically ill, qualitative research

7.2 Introduction

Focus groups have appeared to be an interesting and worthwhile feedback instrument in nursing research studies [1-4]. Such groups offer the possibility to explore a phenomenon of interest by blending elements of group process theory and qualitative research [1]. In our study, the quality of care delivery within the field of chronic care is the issue, especially the extent of patient satisfaction with so-called nurse-led shared care. We consider this issue important, since this kind of care may solve the shortcomings in tailor-made care for the chronically ill [5-8]. Particularly chronic ill patients will suffer from the lack of co-operation between primary and secondary care, because they are often episodic in need of both care sectors simultaneously or in succession. Repeatedly, co-ordination appears to fail in case of transfer vice versa. Consequently, continuity of care is missing. Another shortcoming to be dealt with implies insufficient knowledge in primary care about the long-standing treatment chronic illnesses require. Shared care offers care delivery in which generalists and specialists work together on the basis of agreements about co-operation, responsibilities and management and in which the care is focused at the patients' needs [7,9]. By making shared care nurse-led, a specialised nurse practitioner is launched as key figure who puts emphasis on the issue of substitution of tasks between caregivers, i.e. horizontal substitution --transfer of care from hospital to primary care, and downward substitution --transition of care from a higher to a lower qualified provider, mainly from doctor to nurse [10]. This new concept of shared care implies drastic changes in traditional care. Patients need to be involved in the inherent change processes and the designing of the content of the concept. However, this involvement is utmost difficult [7]. Until now, researchers especially looked for the effects of nurse-led shared care arrangements on the quality of care by focusing at patient outcomes based on the quantitative research techniques that yield individual responses [11]. Patients have been insufficiently offered the opportunity to take part in group conversations about the quality of care, despite the qualification of focus groups as an effective way to learn from perceptions, beliefs, attitudes and experiences [1,4,12]. This is especially true when the topic is complex, diverse factors play a role and insight in the underlying factors is necessary [13], like in our study. However, focus groups can generate cumbersome and complex data [14]. To facilitate the collection of data and the data analyses we applied elements of quantitative methods as an additional means.

We conducted patient focus groups about the quality of care offered by two nurse-led shared care models that are carried out in the Dutch region of Maastricht on the behalf of the patients with diabetes mellitus type 2 and chronic obstructive pulmonary disease (COPD), who have been assessed as medically stable at the outpatient clinic [15,16]. These models aim to improve the quality of care by giving the four nurse practitioners responsibility for the usual outpatient care of the medical specialist in the office of the general practitioner (GP) during one's own quarterly patient consultancy hours, in addition to their traditional task of patient education. The nurses' tasks also entail organisation and co-ordination of care apart from giving advice and instruction to other care providers. The care delivery by all the caregivers involved is formulated in a protocol per chronic disease. The nurse practitioner acts as the central person for the participating patients to turn to. The latter are transferred from the outpatient clinic to primary care, but can still visit the medical specialist at the outpatient clinic once a year [15,16]. Bearing this in mind, we will answer the following research questions: *How do patients judge nurse-led shared care? What quality issues are given priority by them? What lessons can be drawn for the improvement of this care and the qualitative method of focus groups?*

7.3 Methods

In 1999, three focus groups interviews [17-19] were conducted with patients chosen at random from the total group of patients participating in the two shared care models by a researcher. Then, the knowledge of the nurse practitioner was required to judge the patient's ability to join the focus group. The inclusion criteria entailed: the patient is physically able to attend the focus group and is in an overall sufficient physical and mental condition to join the focus group. In case a patient fits the criteria, the nurse personally asked the patient to take part. To list the experiences of the patients in respect to the two models and their judgement of the quality of the care offered, an outline was developed that entailed four clusters with several quality aspects, i.e. cluster 1 (outcome), cluster 2 (technical modes of operation care providers), cluster 3 (interpersonal modes of operation care provider patient) and cluster 4 (organisation) (Table 1).

Table 1 An outline for the judgement of shared care models from the patient perspective

Cluster: quality aspects	
1.	Outcome: efficacy, stress, efficiency
2.	Technical modes of operation care providers: indication, expertise, continuity, support voluntary care
3.	Interpersonal modes of operation care provider-patient: attitude, information provision, counselling, privacy, independence
4.	Organisation: accommodation, availability, attainability, evaluation

This outline was further elaborated on the basis of the patient perspective embedded in models of quality of usual care [20-22]. All quality aspects of care were operationalised, linked to indicators and items. The items were rephrased considering the content of the protocols of the shared care models at hand. The result was a checklist 'quality of shared care models'. Semi-structured interviews were held with the members of the patient organisations ($n = 5$) successively to obtain feedback about the checklist's content, completeness and wording and taking the traditional care as a reference point. These members were asked to score each rephrased item ($n = 80$) with respect to 'importance' and 'experience' in four categories (very important, important, somewhat important and not important) and three categories (positive, negative and impartial), respectively. The scores were used to calculate per item a quality index, i.e. $Q = I \times E$, representing a weighted quality judgement of the

quality of care (Q), composed by the multiplication of the importance score (I ; range 0-10) and the experience score (E ; range 0-2) [23]. The feedback led to minor adjustments of the checklist, while the items in this list with a quality index equal or higher to 10 were selected to discuss first in the focus groups. The score of 10 implied 50% of the maximum score of the quality index of 20. Actually, the higher the score the more unfavourable the quality of care in respect of the particular care aspect turned out to be.

The group sessions lasted about 1.5 h, were led by the same moderator, being a GP with a lot of experience in the field of innovative care including shared care, and were also attended by two researchers. On an average, 21 items were discussed. To increase the validity the moderator followed a predetermined format. This entailed that each session started with the same introduction, in which the aim of the focus group session was explained as well as the procedure that would be followed. Participants were asked to introduce themselves after which each of the selected items from the checklist were addressed. The moderator asked about their experience with each item during performance of the shared care models they joined and gave confined elbowroom to talk about their feelings, opinions and ideas. Then patients were asked to score their experience and the importance they attributed to the particular care aspect alike the three and four response categories offered to the patient delegation before. Finally, the moderator asked the patients to reveal their preference for either the usual care or the care offered by the shared care models, and told them about the future plans on continuation. The group discussions were tape-recorded and transcribed afterwards. The researchers independently scored the reactions of the participants by hand. Per item the 'importance score' was determined for each patient according to the patient's choice of the following categories: very important (score 10), important (score 6), somewhat important (score 3), and not important (score 0). Similarly, the 'experience score' was decided while using the categories positive (score 0), negative (score 2) and impartial (score 1). Also, written notes were made including observations.

Afterwards, the patients' pronouncements per focus group were sorted per item in the categories experience (negative, positive and impartial) and importance (very important, important, somewhat important and not important), next to the category further remarks. The individual experience and importance scores determined by each of the researchers were inserted, compared and differences worked out while also making use of the written notes. Then, all the patients' scores were added and their sum was divided by the appropriate number to yield the total importance and experience scores of the particular focus group on the item. Afterwards, the quality indexes were calculated per item with the aforementioned formula. For further analysis additional criteria were formulated, i.e. patients consider an item important if its total importance score is higher than 5 in at least two focus groups (important), patients simultaneously consider an item as a bad experience, if also its total experience score is higher than 1 in at least one focus group (important plus bad experience), and patients consider an item as very bad experience if its experience score is higher than 1 in at least two focus groups (very bad experience). Along this framework the data was further analysed.

7.4 Results

7.4.1 Participants

A total of 26 patients (mean age 67.5 years; range 52-81 years) took part in the focus groups, i.e. the first group consisted of four diabetic and three COPD patients, the second of four diabetic and four COPD patients and the third of six diabetic and five COPD patients. All the groups encompassed both men and women, in total 12 and 14, respectively. None of the

participants previously joined a focus group. In total, 81 patients were selected at random, two were not judged eligible by the nurse practitioner, whilst finally 34 patients gave their consent from the remaining 79. Predominant further reasons for dropouts were: illness, operation, not mobile, no interest, work, and another appointment.

7.4.2 General evaluation

From the 26 participating patients, 22 experienced the shared care models as positive. These patients were very satisfied with the nurse practitioners' care and expressed that this care should be continued. Twenty-one persons preferred the treatment by the nurse practitioner in the GPs office instead of the traditional care by the medical specialist at the outpatient clinic, while one person liked both the modes. Eight of the advocates argued that the consultations with the nurse practitioner happened more frequently; that the nurse spent more time on them and that they felt safe with her because they were transferred to the specialist anyhow in case a complication occurred. They agreed that the model provided good care. One of the advocates said:

The nurse should be allowed to carry out more tasks. She is capable to do so but is not allowed, that is the delicate point I think. Take for instance the issue of writing out a prescription. The physician is allowed to take care of that and does so immediately. But in case of the nurse this runs by way of the physician or the secretary, which is very time-consuming.

Other persons mentioned:

The medical specialist has not enough time. As a patient you're out within 5 min. This is not the case with the nurse, who takes time for you and the necessary examinations; it is important that somebody shows interest; the nurse sits there and really talks to you.

However, one-fourth of them emphasised that the nurse practitioner should know well the limits of her expertise. In particular:

She is not allowed to provide medical care without the involvement of the doctor.

The remaining four patients preferred traditional care. Two of them considered the nurse practitioner as a redundant link between GP and medical specialist and trusted their medical specialist more. They supposed that the nurse was less competent. One person said:

She is not allowed to prescribe and therefore I would rather visit the specialist.

Besides, in their opinion it was unclear if the nurse, GP and medical specialist knew from each other what each of them had undertaken or discussed with the patient. To put it in a nutshell:

I have not come to recognize the necessity of this nurse.

Another opponent argued that the examination by the medical specialist was better:

So I prefer the medical specialist.

7.4.3 Quality issues: items, clusters and aspects

In the focus groups items were especially discussed from cluster 3 ($n = 20$), followed by items from both clusters 2 and 4 ($n = 5$), and finally cluster 1 ($n = 2$). The *important* items ($n = 9$) came from three clusters (Table 2).

Table 2 Items judged as ‘important’ from the patient’s perspective

Item	Cluster	Quality aspect
The nurse practitioner asks the patient during every consultancy hour how the family and/or other significant others cope with the patient’s disease	2	Support voluntary care
The nurse practitioner provides the patient with plain and sufficiently informative leaflets about the disease	3	Information provision
The nurse practitioner provides the patient with understandable information about compliance	3	Information provision
The nurse practitioner provides the patient with understandable information about diet/food	3	Information provision
The nurse practitioner provides the patient with understandable information about exercise/exertion	3	Information provision
The nurse practitioner provides the patient with understandable information about techniques of injection/inhalation	3	Information provision
The nurse practitioner makes inquiries about the daily activities of the patient and its implications for the patient’s disease	3	Counselling
The nurse practitioner spends sufficient time on the treatment of the patient during the consultancy hour	4	Availability
The patient knows what he/she can undertake in case of any complaints	4	Evaluation

Cluster 3 prevailed, especially the items concerning the clear and sufficient transfer of health-related information from the nurse practitioner to the patient. Striking cases in point were the following opinions:

Leaflets come in very handy to be able to read matters, since you cannot remember everything during the consultancy hour; then you know how everything works; I think it is important if the care provider asks about taking your medication, how and when; it is for your own health; it is important to get good information about food or diet; without any doubt information about exercise and exertion is very important; it is good to know that you can ventilate better by exercise; good explanation of the way I should inject is essential. Otherwise it becomes no good at all; if you are not properly explained how to inhale your medication you get trouble with your throat and voice.

As a result the quality aspect ‘information provision’ was given priority. However, also the clusters 4 and 2 respectively should be taken notice of. The patients held firmly to their belief

that it was important that the nurse practitioner took sufficient time during the consultancy hour.

This makes the consultancy hour humane and then you can tell your story.

In case of complaints most of them did not know what to do. Finally several patients thought the caregiver should ask how their family or significant others cope with the patient's disease.

Then the care provider shows interest.

The *items important plus bad experience* ($n = 5$) belonged to the clusters 2-4 (Table 3).

Table 3 Items judged as 'important plus bad experience' from the patient perspective

Item	Cluster	Quality aspect
The nurse practitioner takes care of a fast arrangement to visit the GP/specialist during the consultancy hour in case of specific complaints/complications	2	Continuity
The nurse practitioner provides the patient with understandable information about ventilation/relaxation exercises	3	Information provision
The nurse practitioner informs the patient about his/her right to examine his/her file	3	Privacy
The patient gets information about the application of the protocol	4	Evaluation
The patient knows what he/she can undertake in case of any complaints	4	Evaluation

One of the two items that scored the worst was the item about the patients' right to examine their own file.

It is important to know in order to get the feeling that you have access to your file and that this is not forbidden.

The other item was getting information about the implementation of the protocol. The patients agreed:

It is important to know more about its background and what plans are drawn up for it. Then you know what they have to do, but we do not know what the protocol implies.

Actually, none of them knew. The item about how and where to report complaints scored likewise.

We have not been told how a complaint about the care delivery or its organisation can be submitted.

Only one or two patients happened to know. Furthermore, only one COPD patient was explained how to use an inhaler, although the COPD patients considered it important to learn how to ventilate better. Several patients complained about the time-consuming procedure required by the nurse-led model, which entailed that the nurse practitioner was obliged to

contact the medical specialist in case of a complication. The quality aspect ‘privacy’ and ‘evaluation’ got priority.

The items *very bad experience* ($n = 5$) were a part from the clusters 3 and 4 (Table 4).

Table 4 Items judged as ‘very bad experience’ from the patient perspective

Item	Cluster	Quality aspect
The nurse practitioner provides the patient with plain and sufficient information about the Dutch Diabetic Union/Asthma Fund	3	Information provision
The nurse practitioner provides the patient with understandable information about vacation	3	Information provision
The nurse practitioner informs the patient about his/her right to examine his/her file	3	Privacy
The nurse practitioner asks for the patient’s choice regarding treatment	3	Independence
The patient knows what he/she can undertake in case of any complaints	4	Evaluation

The worst score was attained by the aforementioned item about the right to examine one’s file, succeeded by the item addressed formerly on complaints. Additionally two focus groups mentioned that they were not informed at all about how to handle in case of vacation and most patients were not asked about their own choice of treatment as illustrated by the pronouncement:

There has been no room for your own choice, while as a patient you feel if you are up to it or not.

Finally, the majority of the patients involved were not informed about the patient organisation. Several patients thought about the last item as bad.

This is critical, since the patient organisation gives you the opportunity to share your distress with your fellow-men when you need it.

The dominant quality aspect was ‘privacy’.

7.5 Discussion

7.5.1 The patient perspective

The invitation to participate in a patient focus group turned out to be rather unfamiliar to the patients selected. Two-third of the group of eligible persons did not give their consent or withdrew although they were asked personally. This was particularly due to their health impairments. In respect to chronically ill patients this circumstance should be dealt with more elaborately in the future to avoid substantial dropout. For instance, facilities for transportation and accompaniments as free services might be offered [2]. All the more the aspect of participation should be emphasized, because afterwards patients were pleased or even

delighted about the possibility to exchange ideas on shared care with other participants in the focus groups, which positive impression is more common [17].

The majority of the participating patients judged the substitution-based nurse-led shared care models as positive and preferable to usual doctor-led care. This is quite remarkable since the nurse practitioners and physicians initially were very reluctant about the acceptance of the models by patients. Maybe in general, care providers are less easily convinced of the feasibility of shared care models than chronically ill patients, because of the traditional professional boundaries they find difficult to give up or change. It needs to be noticed stringently that patients' viewpoints may differ from caregivers' views [24].

Strikingly chronically ill patients who periodically visited the nurse as the central coordinator of their patient care, wanted to maintain a direct link with the medical specialist. This link seems to be dominated by a biomedical approach. Patients probably fear that a particular symptom might refer to a threatening complication for the treatment of which they prefer doctor's expertise [25]. For routine medical health problems and the bio-psycho-social agenda related to the chronic disease, most patients seem to prefer the nurse practitioner's competency. So far, the routine care delivery did not encompass the task of writing out a prescription. This was experienced as troublesome and should be reconsidered. It deserves full attention that patients show differential needs and preferences [25], outcome of which was confirmed by the data. Caregivers have to be sensitive to these differences and need to (learn to) act accordingly.

In the overall patients' judgement the time element appeared to be important. The nurse practitioner spent more time on the patients than the medical specialist. This corresponds with the priority the patients assigned to information provision, which takes time but is congruent with a consumerist stance followed by more and more patients, who seek medical information as much as possible [24-26]. However, even educated patients appear to have difficulty in applying complex knowledge into practice if it differs from their prior knowledge [27]. This pitfall should be a subject of constant concern by all caregivers, particularly the nurse practitioner.

Patients complained that they did not get information about the implementation of the protocol. Yet, all the patients got a leaflet on the shared care model beforehand and were given additional information about this model by their medical specialist. After giving informed consent, they visited the nurse practitioner that informed them about the modes of operation in daily practice. More than likely the given information was rather unfamiliar to them [27] and the medical caregivers may have informed them too soon. Although the assessment of the leaflet yielded the score 'good' using a quality instrument [28], it has to be acknowledged that detailed information about the protocol was left out. Also, the information was not forwarded about the patient's right to examine one's file and the procedure to be followed by the patient in case a complaint would occur. Altogether, the lesson should be drawn that the shared care models lacked transparency for the involved patients on the subjects at hand. Care providers and managers absolutely need to take care of the proficient and sufficient information to patients from the start onwards to empower them to make their own choices deliberately. Improved involvement from the patient representatives to settle matters is strongly recommended. Moreover, consent by a patient to enter the shared care model is quite different from someone's permission for far-reaching treatments during the carrying out of the model. According to Dutch legislation, every such treatment requires approval from the person involved, which should be recorded in the personal file [29]. Once more, this underpins the stand to avoid solving problems for patients instead of with them as genuine partners [30,31].

7.5.2 Research issues

The checklist 'quality of shared care models' appeared quite manageable as an instrument to conduct focus groups, just like the outline for the patients' judgement of shared care models it encompassed (Table 1). But, the number of items taken from the checklist should be reduced drastically to augment the depth of the group interaction [32] and thereby the richness of the qualitative data collection.

It was remarkable that the members from the patient organisations could mainly comment the checklist from their viewpoint of traditional care. Their judgement of the checklist's items implied 16 high quality indexes (meaning bad experiences with traditional care) on average, split up in all four clusters the outline discerns. On the contrary, the participating patients only attained three high quality indexes divided in two clusters. This indicates a difference between the traditional care and the investigated type of shared care models, meaning that in this study the bad experiences in traditional care almost seemed to be solved by shared care. In future, this may leave the quality index pre-eminently a tool for judging the traditional care.

During the focus groups notes were made about non-verbal communication, which could be linked to the verbal accounts. All patients reacted one way or the other and maintained this way during the whole group session. They were eager to tell their own story but principally left out details. Especially, persons who expressed a critical view about the shared care model enforced their arguments by stressed intonation. Some of them tried to dominate. In the data analysis, the non-verbal clues should be paid attention to more closely since group interaction affects data [32]. If permissible, one might consider the use of a video.

The patients who took part in the focus groups appreciated being asked about their experiences, but liked to ask more questions themselves to the moderator. This is in concordance with the appeal to expand the use of interactive systems that allow direct communication between the patients with similar conditions, and the argument that the moderator has to be aware about the feelings of the participants on leaving the group [4,33,34]. It has been suggested to restrict the moderator's input to maximal 10% of the group's transcript, which we consider debatable and predominantly dependent on the particular circumstances [3,35]. The moderator responded very accurately to the demand for more information by providing the necessary amount to enhance an open discussion and giving additional information upon ending the group session. In our view, the moderator should encourage conversation, guide the discussion (preferably dialogue) between the group members, and ascertain the aimed for information in a skilful and not dominant way [1,3], on the basis of sufficient knowledge about the specific topic.

7.5.3 Practice implications

The results of this study suggest that the shared care, in which a specialised nurse practitioner takes the lead at patient level, suits the chronic patients' needs about the continuity and quality of care in general. This implies promotion of the implementation of nurse-led shared care on a large scale instead of adhering to the traditional care.

Hitherto, providers have to acknowledge that they underestimate the importance of the chronically ill patients attribute to the caregivers' information giving and fail in meeting these patients' quality standards on this aspect. They have to learn to leave enough room for feedback on their provision of information and to adjust accordingly to serve patient-centred medicine [36]. Contributions to the development of royal patient-centred, evidence-based protocols on communication in health care are still welcomed [25].

Additionally, we should get accustomed to obtain information about patients' experiences during shared care processes. Also, improved involvement of patient representatives to settle matters needs to become common procedure.

7.5.4 Research implications

On the basis of the outcome, we strongly advocate that the qualitative method of patient focus groups becomes standard procedure in evaluating shared care models for the chronically ill, supported by quantitative means. Efforts to combine qualitative and quantitative research methods should be reinforced and enlarged.

Future attempts to structure patient focus groups on shared care are necessary since the quantification of the expression of views inherent to the quality index to a degree that serves qualitative research optimally, is yet to be found [3]. Further use of the components 'importance score' and 'experience score' of the quality index is advocated, because it enables mutual comparison between quantitative patients' judgements rather easily and by doing so adds information to the qualitative data of various patients' stories. However, to enhance the collection of qualitative data the number of categories used to quantify the degree of importance attributed to the shared care experiences, should be curtailed. This restriction is also recommended because patients showed difficulty to make clear distinctions between the prescribed categories.

Forthcoming qualitative research activities on nurse-led shared care need to put the aspect of provider communication in the spotlight to be able to get a profound knowledge of the patients' view. Only on this ground, the quality of care to the chronically ill can be served fundamentally.

7.6 Conclusion

The conducted focus groups joined by patients with diabetes mellitus type 2 and patients with COPD made clear that chronically ill patients largely prefer nurse-led shared care to traditional care. The most important quality aspect appears to be the provision of information. Yet, its performance by caregivers, in particular the nurse practitioner, still needs enrichment from the patients' perspective. For future use, the chosen tryout to further structure focus groups seems promising.

References

- [1] Dilorio C, Hockenberry-Eaton M, Maibach E, Rivero T. Focus groups: an interview method for nursing research. *J Neurosci Nurs* 1994;26:175-80.
- [2] Then KL. Focus group research. *Can J Cardiovasc Nurs* 1996;7:27-31.
- [3] Sim J. Collecting and analysing qualitative data: issues raised by the focus group. *J Adv Nurs* 1998;28:345-52.
- [4] Clarke A. Focus group interviews in health-care research. *Prof Nurse* 1999;14:395-7.
- [5] Ministry of Welfare, Health and Culture. Chronisch-ziekenbeleid. Chronische patiënten niet buiten spel (Policy on chronically ill. No offside for chronically ill patients). s Gravenhage: Sdu Uitgeverij Plantijnstraat, 1991.
- [6] Ministry of Welfare, Health and Culture-Committee Modernising Curative Care. Gedeelde zorg: betere zorg (Shared care: better care). s Gravenhage: Sdu Publisher, 1994.
- [7] Spreeuwenberg C, Pop P. Transmurale zorg (Integrated Care). In: Spreeuwenberg C, Pop P, Beusmans GHMI, Winkens RAG, Zutphen H van, editors. *Handboek transmurale zorg (Textbook on integrated care)*. Maarssen: Elsevier, 2000.
- [8] National Committee on the Chronically Ill. Advies gespecialiseerde verpleegkundige zorg voor chronisch zieken (Advise specialised nursing care on chronically ill). Zoetermeer: NCCZ, 1995.
- [9] National Council for Public Health, National Board for Hospital Facilities. Transmurale somatische zorg. Advies van de Nationale Raad voor de Volksgezondheid en het College voor ziekenhuisvoorzieningen (Integrated and continuing somatic care. Advice of the National Council for Public Health and the National Board for Hospital Facilities). Zoetermeer: NRV, 1995.
- [10] Spreeuwenberg C. (Net)werken voor chronisch zieken ((Net)works for chronically ill). Maastricht: Rijksuniversiteit Limburg, 1994 (inaugural lecture).
- [11] Vrijhoef HJM, Diederiks JPM, Spreeuwenberg C. Effects on the quality of care for patients with NIDDM or COPD when the specialised nurse has a central role: a literature review. *Patient Edu Counsel* 2000;41:243-50.
- [12] Basch CE. Focus group interview: an underutilized research technique for improving theory and practice in health education. *Health Edu* 1987;14:411-48.
- [13] Walburg JA. Integrale kwaliteit in de Gezondheidszorg. Van Inspecteren naar Leren (Integral quality in Health care. From Review to Learning). Deventer: Kluwer Academic Publishers, 1997.
- [14] Mays N, Pope C. *Qualitative Research in Health Care*. London: BMJ Publishing Group, 1996.
- [15] Eijkelberg I, Mur-Veeman IM. Veranderingsprocessen in de transmurale zorg (Change processes in shared care). In: Spreeuwenberg C, Pop P, Beusmans GHMI, Winkens RAG, van Zutphen H, editors. *Handboek transmurale zorg (Textbook on integrated care)*. Maarssen: Elsevier, 2000.
- [16] Eijkelberg IMJG, Spreeuwenberg C, Mur-Veeman IM, Wolffenbuttel BHR. From shared care to disease management: key-influencing factors. *Int J Integrated Care* 2001;1(2) [www.roquade.nl/IntegratedCare].
- [17] Krueger RA. *Focus Groups: A Practical Guide for Applied Research*. London: Sage, 1988.
- [18] Morgan DL. *Successful focus groups. Advancing the State of the Art*. London: Sage, 1993.
- [19] Morgan DL. *Focus groups as qualitative research*. London: Sage, 1997.
- [20] Post MWM, van den Arend IJM, Dingemans PJM, de Haas CL, ten Horn GHMM, van der Linden BA et al. Kwaliteit van de zorgverlening: het patiëntenperspectief (quality of care: the patients perspective). *Kwaliteit Zorg* 1993;2:50-9.

- [21] van der Waal MAE, Lako CJ, Casparie CF. Voorkeuren voor aspecten van zorg met betrekking tot de kwaliteit. Een onderzoek bij specialisten en bij patiënten met een chronische aandoening (Preferences for care aspects regarding quality. A study with specialists and patients with a chronic disorder). Rotterdam: Instituut Beleid en Management, Gezondheidszorg, 1993.
- [22] Dutch Patient/Consumer Federation. Algemene kwaliteitscriteria: De kwaliteit van de gezondheidszorg in patiëntenperspectief (General criteria of quality: the quality of health care from a patient perspective). Utrecht: NPCF, 1996.
- [23] Sixma HJ, van Campen C, Kerssens JJ, Peters L. Onderzoeksprogramma Kwaliteit van Zorg. De QUOTE-vragenlijsten. Kwaliteit van zorg vanuit patiëntenperspectief: vier nieuwe meetinstrumenten (Research programme Quality of Care. The QUOTE-questionnaires. Quality of care from the patient perspective: four new measurement instruments). Utrecht: NIVEL, 1998.
- [24] Laine C, Davidoff F, Lewis CE, Nelson EC, Nelson E, Kessler RC, Delbanco TL. Important elements of outpatient care: a comparison of patients' and physicians' opinions. *Ann Intern Med* 1996;125:640-5.
- [25] Bensing J. Bridging the gap. The separate worlds of evidence-based medicine and patient-centered medicine. *Patient Edu Counsel* 2000;39:17-25.
- [26] Krupat E, Rosenkranz SL, Yeager CM, Barnard K, Putnam SM, Inui TS. The practice orientations of physicians and patients: the effect of doctor-patient congruence on satisfaction. *Patient Edu Counsel* 2000;39:49-59.
- [27] Bonnet C, Gagnayre R, d'Ivernois JF. Difficulties of diabetic patients in learning about their illness. *Patient Edu Counsel* 2001;42:159-64.
- [28] Eijkelberg IMJG, Veenendaal H van, Demkes H. Op zoek naar een boek? Wegwijzer voor de reumaconsulent (Searching a book? Manual for the rheuma consultant). Hoensbroek: Synchron, Co-ordination Centre on the Chronically Ill, Limburg 1996.
- [29] Wijmen FCB van, Spreeuwenberg C, Willemse DCM. Substitutie (Substitution). In: Spreeuwenberg C, Pop P, Beusmans GHMI, Winkens RAG, van Zutphen H, editors. *Handboek transmurale zorg (Textbook on integrated care)*. Maarssen: Elsevier, 2000.
- [30] Anderson RM, Funnell M, Arnold MS. Using the empowerment approach to help patients change behavior. In: Anderson BJ, Rubin RR, editors. *Practical Psychology for Diabetes Clinicians*. Alexandria: American Diabetes Association, 1996.
- [31] Taylor M. Modernising the NHS patient care (empowerment): a local view. *Br Med J* 2000;320:1663-4.
- [32] Carey MA. Comment: concerns in the analysis of focus group data. *Qual Health Res* 1995;5:487-95.
- [33] Cleary PD, Edgman-Levitan S. Health care quality. Incorporating consumer perspectives. *JAMA* 1997;278:1608-12.
- [34] Smith M. Ethics in focus groups: a few concerns. *Qual Health Res* 1995;5:478-86.
- [35] Hague P. *Interviewing*. London: Kogan Page, 1993.
- [36] Delbanco TL. Enriching the doctor-patient relationship by inviting the patient's perspective. *Ann Intern Med* 1992;116:414-8.

Chapter 8

General discussion

8.1 Introduction

The main goal of the studies reported on in this thesis has been to gather in-depth knowledge about the change processes involved in the improvement of the quality of shared care projects for chronically ill patients, including the key factors influencing these processes. The intention was that this knowledge would make the 'black box' of substitution of care transparent and understood to such an extent that lessons could be learned for better leadership in tomorrow's health care innovations. A comparative approach was applied to five cases, involving the participation of patients with stable type 2 diabetes mellitus or COPD. The cases focused on the transfer of hospital care to community care, partly combined with the transfer of care from doctor to nurse. The research model was an adapted model of the key influencing factors, which derived its dynamic force from the inclusion of elements of the 'learning organisation'. The principal research questions were as follows:

1. What key factors influence the process of development and implementation of shared care projects from the viewpoints of managers, care providers and patients? (chapters 2, 4, 5, 6 and 7)
2. To what extent does the process of development and implementation of one or more of the shared care projects described in section 1.5 constitute a learning organisation, especially one characterised by double loop learning? (chapters 2, 4 and 5)
3. Under what circumstances, to what extent and in what way can the (possibly combined or integrated) shared care projects described in section 1.5 be implemented? (chapters 2, 3, 5, 6 and 7)

The next section briefly summarises the main findings and conclusions, following the three perspectives of managers, care providers and patients. Afterwards, some methodological issues are discussed. The chapter ends with some comments about health care innovation for chronically ill patients.

8.2 Outcome and conclusions

Model used in this study

Chapter 2 described the adapted model of factors influencing change processes in shared care. The model comprises learning loops that link internal and external factors. This model, which was refined further as the study progressed (see chapter 5), functioned as a framework in answering the research questions.

8.2.1 Influencing factors

Management perspective

In chapter 4 it was demonstrated that the project management is the most crucial factor in change processes of shared care activities. Two factors are dominant: double loop learning and the way the project manager behaves as a leader. Successful managers position learning as a core characteristic of the project organisation, in order to fully exploit the key factor of change management. Achieving this requires especially double loop learning, which means getting new insights from experiences, and implies acquiring new understanding and redefining the rules about 'right' and 'wrong' that have to be adhered to.

Chapter 5 deals with the way the project manager behaves as a leader. Transformational leadership, in terms of demonstrating authority and vision, building relationships, sharing

values with followers and flexibility, is the driving force towards meaningful change. The project manager is able to link the different internal factors – change management, commitment and local context – and uses this in a balanced way in his strategies and tactics. The more robust the changes that are aimed at, the more the manager has to focus on a long-term perspective.

Perspective of care providers

Chapter 6 describes the perspective of the care providers, focusing on nurses, in this case specialised diabetes nurses. In addition, the chapter addresses the role of the physicians (GPs and internists) involved.

The nurses reported that the advantages of the substitution of care mode that was applied greatly exceeded the possible disadvantages. Nevertheless, they experienced a number of impediments to its implementation. The main inhibiting external factor they mentioned was legislation, since the relevant Dutch laws imposed barriers on the transfer of routine medical tasks from doctor to nurse. The more competent the nurse became in taking over these tasks, the more these barriers became manifest. The nurses considered the local context to be the most inhibiting internal factor during all project phases, especially the structural component of horizontal and downward substitution. They moved from a state of complaining about unmet preconditions and feeling anxious about taking responsibility for medical tasks transferred from doctors, towards one of accepting full responsibility for their job. In the end, they fought for its full recognition by the medical profession and strongly recommended solving the remaining problems of further structuring substitution of care delivery.

The participating physicians also considered the local context, especially its structural aspects, to be a more impeding factor than the lack of commitment and change management. However, they emphasised task performance and task division more than the nurses did.

Patient perspective

The study reported on in chapter 7 concentrated on the outcome of a number of focus groups involving diabetes and COPD patients in two nurse-led cases. The patients preferred the nurse-led care to traditional doctor-led care. They considered the provision of information to be the most important quality aspect, but the specialised nurses and other caregivers both needed to improve the use of information to empower the patients to make their own choices. They wanted sufficient expert information about the protocol being used, about patients' right to examine their own files and about the procedure to be followed if they wanted to air any grievances. All this seems to confirm the substantial influence of the structural aspects of the local context factor within the adapted model of influencing factors.

8.2.2 The learning organisation

It should be emphasised that the organisations and project managers involved were not familiar with the concepts of learning organisation and double loop learning. Nevertheless, there were indications that some elements or aspects of these concepts were indeed used. The event descriptions in chapter 4 demonstrate that the participants stimulated the project managers to co-operate. The project managers learned to change from competitive behaviour to appreciation and finally to co-operation. This resulted in the start of a dialogue about the integration of fragmented projects in a common disease management approach. The involvement of nurses in the treatment of patients and the training programmes for the GPs resulted in a change in the GPs' referral behaviour. Instead of referring patients to an internist, they referred patients –not belonging to the target group they earlier agreed on– to a specialised nurse. The project management learned that the application of a long-term strategy resulted in the intention to improve the position of nurses. However, the learning loop was

only partly followed. Instead of engaging in a dialogue, the project management discussed issues with the nurses. Hidden agendas were not made explicit.

The results could have been improved if the change management had consciously used the full scale of principles of double loop learning.

8.2.3 Requirements to implement shared care projects

Implementation is distinguished from dissemination, implementation being defined as a fully anchored, permanent extension of a project within a region.

Chapter 4 lists a number of requirements for implementation. In addition to the factors already mentioned as necessary to run a project successfully, it is important to include the long-term perspective in the strategies and tactics. Temporary solutions have to be replaced by permanent measures, and it is imperative to ensure actively and stringently shared responsibility and open communication. Other actions that may facilitate implementation include monitoring and measures to influence external factors, like the health inspectorate, health insurers, patient organisations and legislation. Chapter 5 emphasises that extension of shared care projects towards disease management and implementation requires robust management and leadership.

8.3 Methodological issues

While the methodological choices made in the research for this thesis have been described in all preceding chapters, this section presents some further reflections.

Case study method

The case study method can be used to examine questions of ‘how’ and ‘why’ about contemporary sets of events that the researcher has little or no control over (Yin, 1994), involving complex situations which are difficult to analyse. This is exactly the situation in studying the process component of health care innovations. The method has allowed us to shed light on the story behind the outcomes published by Vrijhoef (2002). It has given us the opportunity to explore the perspectives of different stakeholders. In all, it has offered us a more subtle view on the change process. The disadvantages of the method are well known: it is laborious and its reliability and validity are not guaranteed. Correct triangulation was not always possible, as the researcher did not have access to all meetings and many decisions were prepared or even made outside the formal circuits.

Position of the main researcher & action research

Initially, the main researcher was involved in the development of the projects on diabetes mellitus studied in this thesis in a variety of positions. Later on, she also took on the role of researcher. On the one hand, it was a great advantage that the main researcher was quite familiar with the cases involved and with managing change. On the other hand, her position as a researcher required her to refrain from initiating any kind of intervention. Although it would have been possible for her to turn to action research, a tryout made it clear that this would complicate matters, since the research setting did not easily allow this. To safeguard scientific integrity, traditional research was continued and the main researcher adopted a role in which she kept at a distance. However, in future cases of shared care, it might be useful to also initiate action research from the start (Denzin and Lincoln, 1994; Boog *et al.*, 2000), since this enables a researcher to give feedback on the developments in order to help shape and organise shared care (Miles and Huberman, 1994; Winkens and Klazinga, 2000).

8.4 Final comments

The findings reported in this thesis points to a forthcoming era in the Netherlands in which there is no room for care delivery to the population of chronically ill patients without strings being attached (Dutch Diabetes Federation, 2003; Schrijvers *et al.*, 2005). What we really need are fundamental solutions to the problem of optimal care delivery to this population. It is against this background that health care innovation projects face the challenge to further invest in the ongoing process of change from usual shared care to disease management. This may allow additional evidence to be gathered about the most suitable Dutch disease management programme for different categories of chronically ill patients (Schrijvers *et al.*, 2005). Tomorrow's shared care projects need to focus on outcomes that will survive in the long run. It might be helpful to proclaim the following slogan: short-tem solutions are out, long-term solutions are in. We advocate that policymakers (who decide on subsidies), insurers, managers, care providers, patients and patient organisations should stick to this key principle together. This will require excellent leaders and participants who will develop in meaningful ways (Plsek and Wilson, 2001; Ham, 2003; Gorelick, 2005), i.e. who are willing to learn.

References

- Boog B, Meer D van der, Polstra L. Handelingsonderzoek: hoe doe je dat? (Action research: how is it done?). In: Wester F, Smaling A, Mulder L (eds). *Praktijkgericht kwalitatief onderzoek (Applied qualitative research)*. Bussum: Uitgeverij Coutinho, 2000:139-154.
- Dutch Diabetes Federation. *Zorgstandaard voor goede diabeteszorg. Een eerste voorwaarde voor een nieuw financieringsmodel (Care standard for good diabetes care: a prerequisite for a new funding model)*. Amersfoort: NDF, 2003.
- Denzin NK, Lincoln YS (eds). *Handbook of Qualitative Research*. London: Sage, 1994.
- Gorelick C. Organizational learning vs the learning organization: a conversation with a practitioner. *The Learning Organization* 2005;12(4):383-388.
- Ham CH. Improving the performance of health services: the role of clinical leadership. *The Lancet* 2003;361(9373):1978-1980.
- Miles MB, Huberman AM. *Qualitative Data Analysis: an expanded source book*, 2nd edition. Thousand Oaks: Sage, 1994.
- Plsek PE, Wilson T. Complexity science. Complexity, leadership, and management in healthcare organisations. *British Medical Journal* 2001;323:746-749.
- Schrijvers G, Spreeuwenberg C, Laag H van der, Rutten G, Nabarro G, Schene A, Linden B van der, Acampo M (eds). *Disease management in de Nederlandse context. (Disease management in the Dutch context)* Utrecht: Igitur, 2005.
- Vrijhoef HJM. *Is it justifiable to treat chronic patients by nurse specialists? Evaluation of effects on quality of care (Thesis)*. Maastricht: Maastricht University, 2002.
- Winkens RAG, Klazinga NS. Wetenschappelijk onderzoek (Scientific research). In: Spreeuwenberg C, Pop P, Beusmans GHMI, Winkens RAG, Zutphen H van (eds). *Handboek transmurale zorg (Textbook on integrated care)*. Maarssen: Elsevier gezondheidszorg, 2000:295-317.
- Yin RK. *Case Study Research. Design and Methods*. Applied Social Research Methods Series, vol 5, 2nd edition. London: SAGE Publications, 1994.

Samenvatting

Samenvatting

In verschillende Westerse landen zijn regering, zorgverleners en zorgorganisaties zich in toenemende mate bewust van de toenemende vraag van patiënten met een chronische ziekte naar sector- en institutie overschrijdende zorgvormen, zoals transmurale zorg. Reden hiervoor is dat chronische patiënten bij herhaling worden geconfronteerd met tekortkomingen in de aansluitingen op de verschillende vormen van reguliere zorgverlening. Zij missen continuïteit van zorg tussen de traditionele eerste lijn, waartoe onder meer de huisartsen behoren, en de tweede lijn, waartoe onder meer de medisch specialisten behoren. Daarnaast worden patiënten geconfronteerd met onvoldoende kennis bij zorgverleners in de eerste lijn over de langdurige behandeling die chronische ziekten vereist. Tevens neemt het aantal chronische patiënten snel toe, terwijl de zorgverlening niet aan hun veranderende en toenemende verwachtingen kan voldoen.

Verondersteld wordt dat transmurale zorg bijdraagt aan de oplossing van deze tekortkomingen. Transmurale zorg houdt in dat zorg wordt geboden waarin zorgverleners uit de minder gespecialiseerde eerste lijn en zorgverleners uit de meer gespecialiseerde tweede lijn, samenwerken op basis van overeenkomsten over samenwerking, verantwoordelijkheden en management, die zijn afgestemd op de behoeften van de patiënten. Deze omschrijving impliceert een verandering in taken van zorgverleners en zorgorganisaties en hun taakverdeling, in de zin van substitutie van zorg. Er wordt een onderscheid gemaakt tussen horizontale en verticale substitutie. Horizontale substitutie betekent de overdracht van zorg van een meer gespecialiseerde zorgorganisatie naar een minder gespecialiseerde zorgorganisatie, namelijk van de tweede lijn naar de eerste lijn. Verticale substitutie houdt de overdracht van zorg in van een hoger gekwalificeerde zorgverlener naar een lager gekwalificeerde zorgverlener, vaak van een arts naar een verpleegkundige. Behalve substitutie van taken vereist een transmurale zorgvorm het vinden van nieuwe samenwerkingsvormen en partners, evenals een verandering van attitude, wederzijds begrip en vertrouwen. Reeds in de jaren negentig van de vorige eeuw zijn in Nederland transmurale projecten geïnitieerd ter verbetering van de kwaliteit en efficiëntie van zorg aan chronisch zieken. Zo zijn routinematige taken van artsen gedelegeerd aan gespecialiseerde verpleegkundigen, die deze taken uitvoerden samen met hun traditionele verpleegkundige taken. Ook zijn gezamenlijke consulten georganiseerd door medisch specialisten met huisartsen in de eerste lijn, om de kennis van huisartsen over chronische ziekten en de behandeling daarvan te verbeteren. Echter, nog steeds ontbreekt grondige kennis over de belangrijkste factoren die de daarmee gepaard gaande veranderingsprocessen beïnvloeden.

In dit proefschrift wordt gezocht naar mogelijkheden om specifieke kennis over de belangrijkste beïnvloedende factoren boven tafel te krijgen. Uitgangspunt daarbij vormt de evaluatie van veranderingsprocessen die zich voltrekken binnen een aantal transmurale projecten, die worden georganiseerd als dynamische zorgnetwerken met veel deelnemers met uiteenlopende belangen. Dit betekent het transparant maken van de zogenaamde 'black box' van processen die worden geassocieerd met substitutie van zorg. Een onderdeel hiervan is dat veranderingsprocessen worden beoordeeld door verschillende partijen die aan deze projecten deelnemen.

Het doel van dit proefschrift is om de rol te bepalen die de belangrijkste beïnvloedende factoren spelen tijdens het proces van ontwikkeling en experimentele implementatie van verschillende transmurale projecten vanuit de zienswijzen van managers, zorgverleners en patiënten, om hieruit lering te trekken voor verdere implementatie. Met verdere implementatie wordt bedoeld het bereiken van continuïteit van de projectresultaten na afloop van de formele projectduur. Dit geldt zowel voor projecten die in het proefschrift worden onderzocht, als soortgelijke nieuwe projecten. Vanwege de verwachte dynamische invloed van het

veranderingsmanagement, komt in dit proefschrift de zienswijze van het management uitgebreider aan bod dan de andere twee zienswijzen.

Om vergelijking tussen verschillende projecten mogelijk te maken is in dit proefschrift als onderzoeksdesign gekozen voor het ‘multiple case study design’. Binnen dit design wordt een dynamisch onderzoeksmodel ontwikkeld, dat voortborduurde op de resultaten van eerder uitgevoerde procesevaluaties van zorgvernieuwingsprojecten. Dit model veronderstelt dat er expliciete relaties bestaan tussen de externe en interne factoren die worden onderscheiden en dat deelnemers leren van ervaringen. Zowel de externe factoren, waartoe de rol van overheden, wetgeving en maatschappelijke ontwikkelingen behoort, als de interne factoren, waartoe de lokale context (structuur, cultuur en macht), het draagvlak en het veranderingsmanagement worden gerekend, kunnen bevorderend of belemmerend werken. Het model wordt gebruikt om de verschillende zienswijzen te onderzoeken in een vijftal transmurale projecten in Zuid- en Noord-Limburg die zich richten op patiënten met stabiel ingestelde diabetes mellitus type 2 of patiënten met stabiel ingestelde COPD. In vier projecten speelt de gespecialiseerde verpleegkundige de hoofdrol, waarbij zowel verticale als horizontale substitutie aan de orde is. In het vijfde project staat het gezamenlijk consult van internisten-endocrinologen en huisartsen centraal en de toepassing van uitsluitend horizontale substitutie. Bovendien wordt in twee projecten de zienswijze van patiënten expliciet onderzocht met behulp van semi-gestructureerde focusgroepen. Naast patiënten vormen gespecialiseerde verpleegkundigen, huisartsen en medisch specialisten, ziekenhuizen, regionale thuiszorgorganisaties, regionale huisartsenverenigingen, zorgverzekeraars en het projectmanagement de belangrijkste participanten van deze projecten. Als databronnen wordt gebruik gemaakt van diepte-interviews, schriftelijke vragenlijsten, documentatie zoals protocollen, notulen, jaarlijkse rapportages en rapporten, evenals observaties van vergaderingen.

Allereerst komt de visie van het management aan bod op de belangrijkste factoren die de veranderingsprocessen binnen transmurale zorg beïnvloeden. Uit zowel de data-analyse van eerder uitgevoerde Nederlandse zorgvernieuwingsprojecten, als de vijf projecten die centraal staan in dit proefschrift blijkt, dat de in voornoemd model genoemde interne factoren het belangrijkste zijn om veranderingen succesvol te kunnen bewerkstelligen. Het betreft de lokale context, het draagvlak en het veranderingsmanagement. Daarnaast blijkt dat er zowel op collectief als individueel niveau leerprocessen plaatsvinden, die tenderen naar dubbelslags leren, in de zin van het leren op ‘inzicht-niveau’. De regel of veronderstelling die een organisatie of persoon hanteert met betrekking tot wat ‘goed’ is blijkt ‘fout’ te zijn. Het leren leidt tot verandering van het inzicht waarop deze regel is gebaseerd. Hierdoor worden zich voordoende veranderingsprocessen beter gehanteerd. Ook wordt op basis van literatuurgegevens beschreven hoe managers genoemde factoren pro-actief kunnen hanteren bij zich voordoende veranderingen, met inbegrip van problemen en valkuilen. Het omgaan met de onderdelen structuur, cultuur en macht van de factor lokale context wordt daarbij verder geanalyseerd vanuit de optiek van interprofessionele samenwerking en netwerkvorming. Daarbij blijkt dat de implementatie van transmurale zorg kan worden beïnvloed en gestuurd door structuur, cultuur en macht als uitgangspunt te nemen voor management acties. Tevens dienen veranderingsmanagers zich continu bewust te zijn van de manier waarop professies en netwerken de interacties, conflicten en oplossingen beïnvloeden. Het omgaan met macht wordt daarbij als moeilijkste taak voor veranderingsmanagers beschouwd.

Meer gegevens voor veranderingsmanagers komen voorhanden uit de analyse van twee diabetes projecten in Zuid-Limburg, die geleidelijk veranderen in één disease management

project. In deze projecten blijken de belangrijkste beïnvloedende factoren respectievelijk het projectmanagement, het draagvlak en de lokale context te zijn. De factor projectmanagement is verantwoordelijk voor het actief koppelen van de andere twee factoren. Beide factoren blijken voor het projectmanagement nodig te zijn om strategieën en tactieken succesvol te kunnen toepassen. De lange termijn strategieën en tactieken lijken het meest effectief te zijn. Echter, de mate van succes van de personen in kwestie hangt ook af van hun vaardigheden op het gebied van dubbelslag leren, waarneembare intentie, vakkundige communicatie en hun charisma. Zowel het projectmanagement als de deelnemers leggen in wisselende mate dubbelslag leren aan de dag. Het blijkt dat de in het onderzoeksmodel opgenomen leeracyclus niet in elke situatie geheel wordt doorlopen. Er komen zowel inkortingen als uitbreidingen voor. De dynamiek van de leercomponent maakt maatwerk noodzakelijk, zoals vooral is gerealiseerd door het projectmanagement.

De leiderschapsaspecten van de factor veranderingsmanagement worden onderzocht in twee transmurale projecten in Noord-Limburg, die geleidelijk integreren tot één project. De data-analyse toont aan dat de veranderingsprocessen worden geleid door vier managers. Deze personen leggen allemaal kwaliteiten aan de dag op het gebied van management en leiderschap, hanteren verschillende soorten macht en dienen uiteenlopende organisatiebelangen. Drie personen vervullen sleutelposities in een ziekenhuis, een thuiszorgorganisatie en bij een zorgverzekeraar. Echter, de onbetwiste leider blijkt de voor beide projecten werkzame projectmanager te zijn. Hij overtreft de andere drie managers voor wat betreft visie, passie, moed, inspiratie, vernieuwingsgeest en creativiteit, evenals zijn gebruik van verschillende machtsmiddelen. De tactieken die worden gehanteerd door de vier managers omvatten communicatie en educatie, participatie, het voeren van onderhandelingen, toepassing van dwangmaatregelen, en ondersteuning van het top management. Het gebruik wordt door henzelf voornamelijk als positief beoordeeld. De projectmanager scoort het beste, niettegenstaande het gegeven dat de communicatie tussen de managers pas tegen het eind van het project beter verloopt. Eerst rond die tijd slagen ze erin om de problemen te overwinnen die de continuïteit van het project belemmeren.

Vervolgens wordt specifiek ingegaan op het perspectief van zorgverleners, met name hun visie op de factoren die belemmerend werken. In twee transmurale zorgprojecten voor diabetespatiënten in Zuid- en Noord-Limburg waarin de gespecialiseerde verpleegkundigen een centrale rol vervullen, wordt vooral de Nederlandse wetgeving als hinderlijke externe factor ervaren. Van de interne factoren wordt de lokale context als het meest problematisch beschouwd, vooral het aspect structuur. Problemen worden vooral gesignaleerd in de patiëntgerichte zorgverlening, de taakuitvoering door zorgverleners, de gezamenlijke zorgverlening en de samenwerking tussen deelnemers. De verpleegkundigen zijn meer eensgezind over de problemen die zich voordoen bij verticale substitutie dan bij horizontale substitutie. Hun ervaringen worden vergeleken met die van de betrokken huisartsen en internisten-endocrinologen. Zowel de verpleegkundigen als de artsen beschouwen de wijze waarop het transmurale zorgaanbod wordt gestructureerd als de meest belemmerende factor, met name de verticale substitutie van dokter naar verpleegkundige.

Aansluitend komt het perspectief van patiënten aan bod. De ervaringen van patiënten met diabetes mellitus type 2 en COPD die deelnemen aan twee transmurale zorgprojecten in Zuid-Limburg, waarin de gespecialiseerde verpleegkundige een centrale rol vervult, worden onder de loep genomen in semi-gestructureerde focusgroep interviews. De meeste patiënten beoordelen de ontvangen zorg als positief en geven hun voorkeur aan continuering van deze zorg in vergelijking met traditionele zorg. Tevens wordt ingegaan op hun oordeel van het belang dat zij hechten aan verschillende kwaliteitsaspecten. Het belangrijkste aspect vormt de

informatieverstrekking, vooral de items over duidelijke en voldoende verstrekking van informatie over kwesties rondom de gezondheid. Echter, de uitvoering daarvan blijkt nog voor verbetering vatbaar te zijn, vooral door de verpleegkundige. De slechtste score wordt behaald bij het kwaliteitsaspect privacy, dat wil zeggen bij het item over het recht om zijn eigen dossier in te zien.

Tot slot wordt geconstateerd dat uit de toepassing van de ‘case study method’ in dit proefschrift blijkt, dat deze methode de mogelijkheid biedt om de proceskant van zorgvernieuwing te onderzoeken vanuit de zienswijzen van verschillende partijen. Het resultaat van deze toepassing is een meer subtiele zienswijze op veranderingsprocessen die zich voltrekken binnen transmurale zorgprojecten. Het in dit proefschrift gehanteerde dynamische onderzoeksmodel, waarin de interne en externe factoren worden verbonden met behulp van een leercyclus, is bruikbaar gebleken om de gestelde onderzoeksvragen te beantwoorden. Vanuit het management perspectief blijkt het project management de meest cruciale factor te zijn die de veranderingsprocessen binnen de transmurale zorgprojecten beïnvloedt. Vanuit de perspectieven van zorgverleners en zorgvragers blijken de structuur aspecten van de factor lokale context van substantiële invloed te zijn. Geconcludeerd wordt dat managers succesvol kunnen zijn indien zij dubbelslags leren centraal stellen binnen de projectorganisatie en zich manifesteren als een leider. Indien de projectmanagers en de betrokken organisaties vertrouwd waren geweest met de toepassing van de concepten van een lerende organisatie en dubbelslags leren, had het resultaat beter kunnen zijn.

Hoe ingrijpender de gewenste verandering is, hoe nadrukkelijker een manager zich dient te richten op het lange termijn perspectief. Dit lange termijn perspectief geldt ook bij implementatie van een transmuraal zorgproject, in de zin van een permanente uitbreiding van een project binnen een regio. Benadrukt wordt dat dit in de hantering van strategieën en tactieken tot uitdrukking dient te komen. Tijdelijke oplossingen dienen vervangen te worden door permanente maatregelen. Gezamenlijke verantwoordelijkheid en open communicatie dienen op actieve wijze te worden gewaarborgd. Stevig management en leiderschap zijn de sleutelwoorden, zeker indien verankering van transmurale zorg richting disease management aan de orde is.

Vanuit de optiek van managers, zorgverleners en patiënten geeft dit proefschrift inzicht in de sleutelfactoren die veranderingsprocessen in transmurale zorg aan chronisch zieken beïnvloeden, evenals hun onderlinge samenhang. Daarmee is de zogenaamde ‘black box’ die wordt geassocieerd met substitutie van zorg transparant geworden. Er is een onderzoeksmodel gepresenteerd dat verder kan worden gehanteerd bij procesevaluaties van transmurale zorgprojecten. Als aanvulling is de methode van semi-gestructureerde focusgroepen met patiënten aangereikt. Tevens zijn op basis van de resultaten lessen geformuleerd voor verpleegkundigen, dokters, managers en patiënten, om in de toekomst beter het hoofd te kunnen bieden aan de geconstateerde problemen. De belangrijkste les is dat wordt gewerkt aan lange termijn oplossingen. Dit vereist uitstekende leiders en deelnemers die bereid zijn om echt te leren.

Dankwoord

Dankwoord

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Curriculum Vitae

Curriculum Vitae

Irmgard Eijkelberg was born on December 14, 1956 in Maasbracht. She finished primary school in Maasbracht. After finishing high school in Echt she studied pedagogical and adult educational sciences, at the University of Nijmegen, where she graduated in orthopedagogics in October 1981. Her master thesis regarded intervention procedures for teaching multihandicapped hearing impaired children. She supplemented her graduation with psychodiagnostics (October 1981) and clinical psychology with the basics of psychotherapy (May 1982). Afterwards she took courses in the field of professional management, case management and project management (1984-2003), passed examinations at Open University in Heerlen on organisational learning (1991, 1993) and marketing (1994), and followed a post-initial higher education course on topicalities in health care law (1994). Additionally, she participated in several (University) post-graduate courses on quality of care, shared care on behalf of patients with rheumatoid arthritis, COPD and diabetes mellitus, shared care for the elderly, implementation issues, palliative care, health care innovation, health policy, computer programmes and research methods. She also joined an educational trip on health care in the United States and Canada and study conferences on the patient perspective (with regard to chronically ill patients) and health care innovation in Belgium, Sweden and Italy.

Since April 1982 she worked in several staff positions with attached managerial activities in health care organisations on behalf of the care of the mentally handicapped, nursing homes, mental health care, primary care, hospital care and the chronically ill. The organisations were the following: the Co-ordination Centre on Regional Consultative Bodies in the care of the mentally handicapped in the Province of Limburg (KROZ, accommodated by the Provincial Centre on Social Work (PCMW)) in Roermond, the Foundation of General Co-operation on health care and social services Middle Limburg (SGMD ML) in Horn, the St. Laurentius Hospital in Roermond and the Co-ordination Centre on the Chronically Ill Limburg (Synchron, accommodated by the Institute for Rehabilitation Research (iRv)) in Hoensbroek.

Since May 1996 till 2000 she also worked as a researcher at the Department of internal medicine University Hospital Maastricht on behalf of the evaluation of the joint consultation project between internist-endocrinologists of this department and the GPs in the Maastricht region. Besides she carried out research activities at iRv/Synchron, on behalf of the process evaluation of the nurse-led shared care projects in the North Limburg region, which formed a part of the Care Innovation Experiment in North Limburg (accommodated by the Hospitals North Limburg in Venlo). From July 1998 till 2001 she was seconded by the iRv as a researcher at the Department of Health Organisation, Policy and Economics (BEOZ) Maastricht University on behalf of the PhD-project 'Care networks for chronically ill'. From 2001 till 2002 she was employed by BEOZ Maastricht University to continue the PhD research activities.

In autumn 2000 she was also appointed as managing director of the academic Health Care Centre Withuis (Gezondheidscentrum Withuis) in Venlo. Currently she works as an adviser at the House for the Care (Huis voor de Zorg *) in Sittard.

Since 1991 she also fulfilled several additional functions in health care organisations as a project co-ordinator, project manager, management consultant, manager and member of the board, next to a membership of different committees of local councils. Nowadays she is a member of a committee regarding appeals of citizens at the local council of Roerdalen.

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