

# MASTER THESIS

## MANAGERS AND MEDICAL PROFESSIONALS SITTING IN THE PSYCHIATRIC TREATMENT CHAIR

*Analysis of the impact of logics and (self-) efficacy of managers and medical professionals within psychiatric health care on the implementation process of a new financing system and the lessons learned from other organizations*

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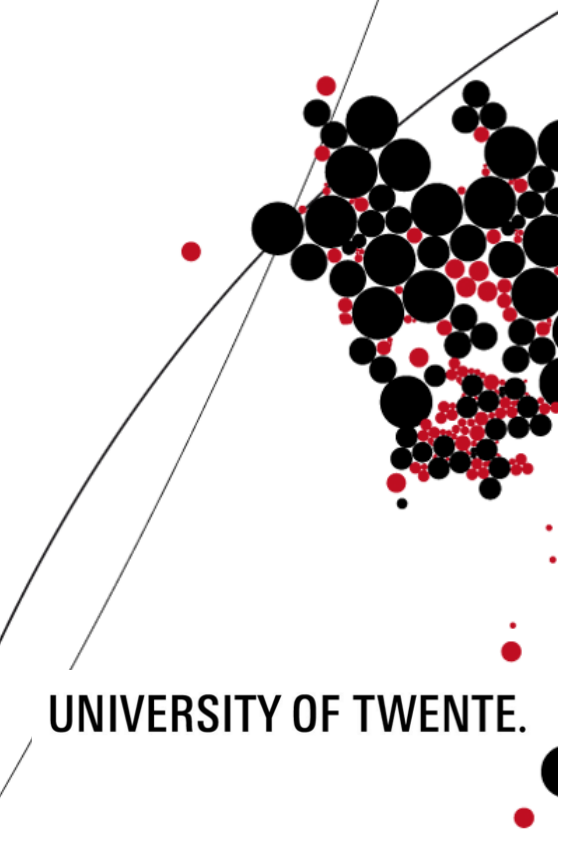
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## Preface

This master thesis is the result of my final assignment for the master program Health Sciences, track Health Services and Management, at the University of Twente. The research is conducted on behalf of a psychiatric clinic in Germany and was performed from February to August 2015. During the conduct of my research I encountered several challenges. Therefore, I would like to thank the people who guided and supported me in writing my thesis.

First, I would like to thank my external supervisor, Ralph Menke. Ralph gave me a lot of freedom in my research design, but supported me at all times.

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Have fun reading my thesis!

Julia Schnetgöke

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## Executive summary

**Background:** The rising demand for health care leads to an increase of health care related expenditures in Germany and the Netherlands. The percentage of the gross domestic product (GDP) that is spent on health in Germany increased with 0.8% between 2007 and 2013, whilst the Netherlands even noticed an increase of 2.1% of their GDP in the same time. In response, several governments already introduced incentives to react on these rising health care costs. One of these incentives is the introduction of managed competition, for example by using a *'diagnosis-related group'* system (DRG-system) in the somatic health care sector. The DRG-system is expected to enhance cost-effectiveness of health care. Currently, the German psychiatric health care sector is implementing a new financing system, the so-called *'Pauschalierendes Entgelt für Psychiatrie und Psychosomatik'* system (PEPP-system). It is reasoned that the PEPP-system allows costs to be based upon diagnoses and severity of illness. In order to enhance the implementation of the PEPP-system insights into the perceptions of stakeholders affected by the implementation of this system are needed. The perceptions of stakeholders are ought to be influenced by the logics they are embedded in and their (self-) efficacy. In analysing these perceptions, this research draws upon the theory of Reay and Hinings (2009), stating that there are two logics within health care, namely business-like health care and medical professionalism. Also, the (self-) efficacy of stakeholders is considered as well, as this determines a person's beliefs regarding his own ability to perform a certain activity successfully. It is unknown to what extent logics and the (self-) efficacy influence the perceptions of managers and medical professionals on the implementation of a new financing system. Therefore the following research question is developed: *"In what manner do logics and (self-) efficacy of professionals within psychiatric health care influence the perceived implementation of a new financing system and which lessons can be learned from other organizations?"*

**Method:** A qualitative, exploratory research was performed. First, a literature review about logics and (self-) efficacy was conducted to define the field of the research. Second, qualitative interviews were conducted in order to gather detailed information on the experiences of clinics that are already using the PEPP-system. The format of the interviews is based upon semi-structured interviews and statements on a Likert scale.

The interviews were conducted in one psychiatric clinic in the Netherlands and four psychiatric clinics in Germany. In total 16 respondents were interviewed. Most of the interviews were voice-recorded and verbatim transcribed afterwards. In addition, the interviews were coded and the statements were analysed by means of Excel.

**Results:** The findings of this research support the theory of Reay and Hinings (2009), which states that a difference can be made between the logics that are detected among managers and the logics that are detected among medical professionals. The differences in logics of managers and medical professionals were found both in Germany and the Netherlands. It is assumed that those different perceptions come forward from the different principles of the logic of medical professionalism and the logic of business-like health care. As

managers and medical professionals perceive changes and the implementation in different ways, different implementation approaches should be developed for the two logics.

The (self-) efficacy of stakeholders differed between countries and logics, as German respondents have a higher (self-) efficacy before the implementation than Dutch respondents. After the implementation the (self-) efficacy of Dutch managers is higher than it was before, whereas the (self-) efficacy of Dutch medical professionals is decreasing. Also, in general managers have a higher (self-) efficacy than medical professionals. Furthermore, it is assumed that clinic A can learn from other organizations and therefore recommendations for clinic A are provided. This, however, cannot be confirmed yet, as it is unknown how well clinic A will perform the implementation with the given recommendations.

**Discussion:** The propositions regarding logics, perceived implementation and (self-) efficacy are supported by this research, whereas the proposition with respect to the lessons learned cannot be confirmed yet. Though, this proposition might also be supported after the implementation of the PEPP-system in clinic A took place. It is found that managers and medical professionals are embedded in different logics, which corroborates with the theory of Reay and Hinings (2009). Additionally, the theory of (self-) efficacy by Bandura (1977) and the Theory of Planned Behaviour by Ajzen (1991) are considered in this research to determine the extent to which stakeholders make effort to implement a new financing system. Also, these theories might help to increase the likelihood of implementing the PEPP-system successfully.

The findings of this research should be considered as a starting point for future research. So, further studies are needed to test the extendibility of these findings and to obtain generalizability. This implies interviewing a larger number of managers and medical professionals from different organizations. Additionally, it is necessary to investigate in what manner collaboration might improve the implementation process, why medical professionals are more embedded in their own logic than managers and what the influence of cultures on the perception of an implementation process is. Furthermore, a similar research should be performed when the consequences of the implementation of a new financing system in psychiatric health care are known.

# 1. Introduction

## 1.1 Change management

The pressure of costs within organizations (1) results in the need for organizations to become faster, more cost-effective and thereby more efficient (2). Also, the speed by which organizations need to change has accelerated in the past years. This created a picture of organizations as learning and continuous developing systems (3–5). The centre of change management is formed by the management and employees of the changing organization. Change management is defined as the daily practice of managers and employees of all hierarchy levels (2). For organizations to be competitive and participate in managed competition they need to change at the same pace as their environment (4). It seems that only organizations that adopt rapidly to new challenges can be successful (3).

## 1.2 Health care

The increasing demand for health care leads to rising health care costs (6). The total expenditures on health as a percentage of the gross domestic product (GDP) have risen in Germany and the Netherlands. Whereas in Germany the total expenditures on health were 10.5% of the GDP in 2007, this has risen to 11.3% in 2013 (7). The increase of health care expenditures in the Netherlands is even higher: whilst in 2007 10.8% of the GDP were spent on health care, this escalated to 12.9% in 2013 (8). Additionally, an estimate shows that both countries expect another increase for the upcoming years (9,10). Different governments already introduced incentives in order to react on the rising health care costs and to increase efficiency (11). Several countries seem to have found salvation in the implementation of managed competition (12–14), which strives to increase cost-effectiveness and improve the quality of care by promoting competition between providers (4,15,16).

An example of such a government incentive is the introduction of the diagnosis-related group (DRG) system for the somatic health care sector in Germany in 2003. The DRG-system is an output-based system that, in order to classify hospital performances, determines national uniform prices for health care services (11). The DRG-system strives to enhance a more efficient distribution of health care resources (11). Besides, evidence based treatments might help to improve quality of care (12,17). These improvements could be reached by insurance companies and health care providers negotiating about performances regarding costs and quality of care (18,19). This is ought to result in hospitals trying to offer cost-effective services (19).

Ikkersheim (2013) conducted a study about the effects of the implementation of managed competition (15). He assumes that the efficiency and accessibility of hospitals have improved since the introduction of the DRG-system. In addition to a better efficiency and accessibility, it seems that transparency and competition of health care providers might improve quality of care and patient experiences (15). This is supported by the proposition that hospitals enhanced their productivity by 4.6% annually between 2006 and 2009 (15). However, although managed competition helped the somatic health care sector to become more efficient, the expenditures keep rising (15), which can be attributed to the fact that the demand for health care is still increasing.

### 1.3 Changes in psychiatric health care

The number of inpatient treatments for people with mental and behavioural disorder in Germany has risen with 46.4% between 1994 and 2008 (20). In addition to this growing number, the total number of people with psychiatric disorders has risen with almost 100% between 1991 and 2010 (21). It is even suggested that about 40% of all individuals will be confronted with a psychiatric disorder once in their life (22). There has already been a reduction of the average duration of stay, but the number of inpatient treatments is still increasing (21,23). This has, amongst others, led to an increase in psychiatric health care costs of €249 million between 2007 and 2009 (24). For the future it is not expected that the increase in patient treatments will stop, which may lead to even higher health care expenditures (25). Since these trends have led to an escalation of the health care costs in the psychiatric inpatient sector, a new financing system was introduced for the psychiatric health care sector in Germany in 2013.

Currently, the financing of psychiatric health care clinics in Germany is based upon an individual daily care rate, meaning that the accounting of clinics is done by remuneration per day that a patient gets treated. In order to control the rising costs a lump-sum, performance oriented charge system for all psychiatric, inpatient clinics and the psychiatric, inpatient departments of somatic hospitals in Germany, called '*Pauschalierendes Entgelt für Psychiatrie und Psychosomatic*' system (PEPP-system) was introduced (26). The PEPP-system is a remuneration system with performance orientation and potential degressive compensation, based on the number of days a patient spends at the clinic (23,26). The declaration of costs within the PEPP-system is based on the diagnosis and the severity of illness of patients (26,27), which means that case mix is considered (27). Furthermore, the implementation of the PEPP-system should enhance transparency in performances and costs. Transparency is required to achieve remuneration regarding performances. Currently, little is known about performances and cost drivers within psychiatric health care. Yet, using the PEPP-system is expected to depict 70 to 80% of the performances (28). The PEPP-system is adapted every year and is accordingly seen as a learning system. In order to be able to advance the system, current information regarding diagnoses, outputs and performances is needed by the '*Institut für das Entgeltsystem im Krankenhaus*' (InEK). Besides, every psychiatric clinic has the possibility to submit suggestions to the InEK (23).

Since the decision of implementing the PEPP-system is made by the government on a national, strategic level, it is seen as an intentional macrosystem transformation. Such a transformation cannot be designed by the managers of the health care organization directly (29). Nonetheless organizational leaders have the power to accelerate changes which they want to realize in their own organization (29). Besides, clinics that focus on the psychiatric treatment of people are affected by the changes that arise due to the implementation of the PEPP-system. These clinics want to get insights into the changes that appear due to the introduction of the PEPP-system.

In order to guide the changes as effectively as possible, it is critical to analyse the perceptions of involved stakeholders regarding the changes which will take place the upcoming years. Therefore, the framework of this research will be based on different logics in health care and the related perceptions. Hence, the following research question was developed:

*“In what manner do logics and (self-) efficacy of managers and medical professionals within psychiatric health care influence the perceived implementation of a new financing system and which lessons can be learned from other organizations?”*



## 2. Theoretical Framework

This chapter provides the theoretical background of the research. As this research is characterized by different groups striving for dominance, the theoretical framework draws upon different logics in health care. Also, the effects of implementing a new financing system and the conflicts and tensions that appear due to this are reviewed. Additionally, theories on the engagement of people in certain activities, (self-) efficacy and the 'Theory of Planned Behavior' (TPB) and its importance are provided.

### 2.1 Introduction

Managers have gradually gained influence as a new profession in health care (30). Their growing influence is driven by the increasing medical and technical possibilities and the financial – and quality management (30). One of the greatest difficulties in managing hospitals is caused by the different goals of managers and physicians (31,32). In general, physicians want to treat the individual patient in the most optimal way, whereas managers want to provide high quality whilst maintaining cost-effective services (30,32). Therefore, agency problems can occur, when the two stakeholder groups of managers and medical professionals need to cooperate. The agency problem is twofold: The first one occurs if two parties have conflicting goals and the second one occurs if it is difficult for the principal to prove what the agent is actually doing (33).

### 2.2 New financing system

The implementation of a new financing system, which is supposed to lead to managed competition, might result in more bureaucracy (34). Professionals criticize the increasing bureaucracy since the boundaries between management and professionalism are blurring (12,35). Klopper-Kes et al. (2010) presume that quality initiatives within hospitals lead to an increasing influence of managers on quality and efficiency. Managers however do not consider professional standards, which therefore influences the work of physicians (30). As a result, professionals feel themselves increasingly limited in their clinical autonomy (12).

Moreover, due to a new financing system, professionals are made aware of both the organizations' financial situation and the financial impact of their own performances. However, considering the economic interests seems to be in conflict with the professional code of ethics (12). Furthermore, professionals perceive that managed competition leads to a decrease in quality of care (34). This might be due to the existence of selective contracting where health care providers and insurers only collaborate if they agree on prices. Therefore, health care providers often need to become cheaper which could lead to health care of decreasing quality. Also, as insurance companies do not reimburse all health care providers, patients need to pay for some treatments themselves. However, not all patients have the financial means to pay for their care (36). This is in contrast to the assumption that within hospitals quality of care and cost-effectiveness need to go hand in hand (30).

### 2.3 Managers and medical professionals

The differences between managers and physicians, combined with the fact that both groups are working within the same organization result in intergroup conflict setting (30). Klopper-Kes et al. (2011) assume that in such a setting, individuals have the tendency to exaggerate differences between the groups, which leads to stereotyping (30). Stereotyping results in filtered information, which again leads to more negative perceptions concerning the other group. Consequently, it is difficult to work together with an open attitude (30). Hence, it is important to handle the subcultural diversity in order to manage health care and improve quality (37).

Klopper-Kes et al. (2010) demonstrate that the relationship between managers and psychiatrists consists of intergroup conflicts, since both managers and psychiatrists have an “*us versus them*” way of thinking and a low level of trust into each other. Reasons for the low level of trust are, amongst others, that psychiatrists are led by their clinical autonomy while managers are led by bureaucratic control. These factors, also referred to as clinical autonomy of the medical professional and managers thinking within standardisation and structures, influence the glimpse of professionals on the management (30). Also, both groups are under the impression that the other group is more powerful, but agree that physicians have a higher status. On top of that, they agree that their goals are incompatible (30). The intergroup conflicts can affect the implementation of a new financing system in a negative way, since management and medical professionals have contradictory goals and are not working with the same intention. This gap also affects the patient, as well managed care usually leads to better outcomes (32). Nevertheless, if these two stakeholders would act collectively the organization could improve (30).

In order to prevent these problems, transparency of communication and a clear division of tasks are needed. This ensures, that stakeholders cannot make each other accountable (30). Additionally, the proposition is developed that as the gaps between physicians and managers are decreasing, the co-operation will improve and so will the hospital performance (30).

Although medical professionals are dissatisfied with the changes, they do not deal with or address them (38). Additionally, Krogstad et al. (2004) suggest that physicians can tolerate more disagreement and stress before considering a conflict, which could be interpreted as physicians having a high level of insensitivity to a collaborative climate (37). This, however, might hinder co-operation (30). In case of a new financing system, medical professionals get the impression of non-professional parties determining which tasks need to be performed, how and in which order (34). Accordingly, medical professionals think that they cannot influence the change process (38), which is in accordance with the theory of Lipsky (1980). Lipsky (1980) shows that policy changes are performed without considering how the different stakeholders are affected (39). On the contrary, managers agree that medical professionals have a high informal power, since together they can operate against the management (30). It is even stated that medical professionals have the power to influence policy changes. This can result in undesired operation adjustments by the government (40).

To summarise, literature suggests that managers are gaining more influence in health care which leads to medical professionals feeling limited in their clinical autonomy. Also, medical professionals are made aware of the financial impact of their performances, which appears to be in conflict with their professional code of ethics. It seems that managers and medical professionals have different goals, which, in addition to the fact that they are working within the same organization, can lead to intergroup conflict setting. Intergroup conflict setting could affect the implementation process in a negative way as managers and medical professionals are not having the same objective.

## 2.4 Logics within health care

As mentioned in the introduction, the theoretical framework of this research draws upon the concept of logics (41). Several researchers have developed theories on different logics that exist within health care. Logics refer to belief systems that are dominant in an organizational field and thus provide a field's principles (42). Reay and Hinings (2009) demonstrate that logics are used to define the purpose of a certain stakeholder and to unite stakeholders within an organizational field. Additionally, they suggest that logics compete for domination, which leads to rivalry (41).

Van de Donk et al. (2004) argue that there are three logics within health care: institutional logic, professional logic and demand logic. These logics represent the perspective of the management, the perspective of the medical professional and the perspective of the consumer, respectively (40). It is assumed that tensions arise between institutional logic and professional logic. These tensions appear due to the fact that medical professionals want to deliver a high quality of care whilst the management focuses on cost-effectiveness (40). Additionally, Verhagen (2005) states that there are four logics within health care: political logic, economical logic, family logic and professional logic. The four logics focus on responsibilities of the government, health care as a commercial product, moral responsibilities of family members and the relationship between professionals and the patient, respectively (43).

This research draws upon the framework on logics in health care by Reay and Hinings (2009). This theory is chosen as it highlights the actions of micro level actors within change processes and the fact that clinics are most interested in inter-organizational collaboration; agency between medical professionals and managers. Additionally, Reay and Hinings (2009) assume that competing logics of actors can be connected to several co-existing logics and that collaboration can support the introduction of changes. They define collaboration as the process that occurs *"when a group of autonomous stakeholders of a problem domain engage in an interactive process, using shared rules, norms and structures, to act or decide on issues related to that domain"* (41). By means of the differences in the professional cultures collaboration, however, can be difficult (30). Other research suggests that if two groups have competing logics or competitive value commitments the two groups might even try to gain influence over each other (44).

## 2.5 Reay and Hinings

Reay and Hinings (2009) suggest that there are two main logics within health care organizations that exist simultaneously and contradict each other: business-like health care and medical professionalism. In implementing changes the business-like health care logic describes the belief system of the management, aiming to increase efficiency and provide cost-effective treatments, whereas medical professionalism represents the logic of health care professionals, who want to deliver the best care for the individual patient by using their professional knowledge (41).

One consequence of the contradiction in logics is that medical professionals and the management often disagree. Moreover, their logics are competing as the logics are associated with contrasting organizing principles and different behaviours (41). Additionally, this disagreement can be caused by the fact that medical professionals do not want their behaviour to be determined by the government's determination of patient satisfaction and cost-effectiveness. It is expected that these two logics continue to co-exist while none of the logics is considered as dominant (41). However, research suggests that in the setting of the DRG-system the business-like health care logic has gained more prominence which is at the expense of the influence of medical professionalism (42).

## 2.6 Self-efficacy

Research suggests that self-efficacy of individuals plays a critical role in how tasks and challenges are addressed and that strong self-efficacy promotes performances (45,46). Furthermore it is outlined that self-efficacy has an important role in changes that are accomplished in frightened behaviour (45). Therefore, self-efficacy plays a crucial role in the implementation of a new financing system. The theory of self-efficacy is linked to Banduras social cognitive theory, which discusses the influence of social experiences and observational learning for the development of personalities. The idea behind this theory is that the actions and reactions of individuals are based upon observations noticed in others (47).

Fleuren et al. (2004) define self-efficacy as the *"confidence to perform the behaviour needed to implement the innovation"* (48). In other words, self-efficacy determines a person's beliefs into his ability to be successful in a certain activity. Bandura (1977) distinguishes outcome expectancies from efficacy expectations, as he assumes that stakeholders can believe that an action leads to a certain outcome, while still having doubts about their own ability to perform these activities. Thus, he supposes that psychological procedures strengthen expectancies of efficacy (45). Outcome expectancies are defined as *"a person's estimate that a given behaviour will lead to certain outcomes"* (45). Efficacy expectations are defined as *"the conviction that one can successfully execute the behaviour required to produce the outcomes"* (45). Additionally, Schwarzer et al. (1995) suggest that activities which are usually successful may not be pursued if people do not think that they can accomplish the activity (49). The degree of efficacy expectation even has an effect on whether individuals will try to cope with a given situation. Therefore, trust into the own capacity is an increasingly important factor in implementing change (45,46).

Furthermore, Bandura (1982) states that by defining their capabilities, individuals affect their behaviour and motivation (46). This effect occurs due to individuals' fear of threatening situations, which they try to avoid, whereas they want to be involved in situations that they see themselves capable of (45). When facing difficulties, individuals with doubts diminish their efforts, while those with a high self-efficacy make greater effort (46). Additionally, efficacy expectations determine how long individuals persist obstacles and how much effort they make (45,46). Research by Shell et al. (1995) shows that if stakeholders develop a higher self-efficacy, this is directly associated with an improvement of their skills (43). Thus, in order to increase the likelihood of a successful implementation it is important for stakeholders to have a high self-efficacy.

For the purpose of this research (self-) efficacy is divided into two aspects: The first aspect considers self-efficacy as the trust into oneself. The second aspect considers efficacy, which describes the trust into co-workers that are embedded in a different logic.

## 2.7 Theory of Planned Behavior

Another theory regarding peoples aims to engage in activities or perform a certain behaviour is TPB (52,53), which is provided in Figure 1. The goal of TPB is to forecast behaviour and an actors' motivation to change his behaviour. Ajzen (1991) suggests that intentions are the nearest predictor of a certain behaviour which can be obtained and defines them as *"assumed to capture the motivational factors that influence a behaviour"* (53). The intention of an individual is determined by three factors: the first factor is attitude, which refers to a positive or negative evaluation of the behaviour. Subjective norm, the second factor, is referred to as the social pressure an individual perceives while evaluating whether certain behaviour should be performed or not. The third mechanism, perceived behavioural control, represents a person's evaluation of its capacity to perform a certain behaviour (52,53). It is assumed that perceived behavioural control influences the intentions and behaviours of individuals. As the perceived behavioural control is low, people's confidence into their ability is low as well. Moreover, the perceived behavioural control is based upon control beliefs whether an individual has access to opportunities and resources to achieve the behaviour successfully. These opportunities and resources include internal factors such as personal skills and abilities and external factors such as dependencies on others or barriers (54). Therefore, TPB has similarities with the theory of self-efficacy by Bandura (1977) as both theories investigate the confidence an individual needs to perform certain behaviour in light of barriers.

The three given factors are dependent on several beliefs. Ajzen (1991) distinguishes three types of beliefs: behavioural beliefs, normative beliefs and control beliefs. Behavioural beliefs influence the attitude of an individual, normative beliefs affect the subjective norm and control beliefs have an effect on perceived behavioural control. Also, the different beliefs influence each other (53).

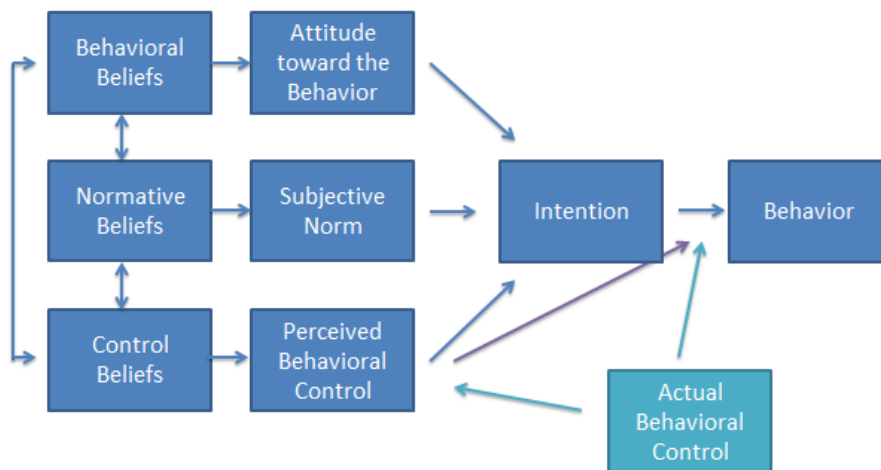


Figure 1 - Theory of Planned Behavior (Ajzen, 2006)

Both, (self-) efficacy and TPB deal with people's engagement in certain activities. Research by Conner (2010) suggested that self-efficacy and intentions are critical predictors in a great variety of health behaviours (54). Therefore, (self-) efficacy and TPB are a starting point for the implementation of a new financing system, particularly for the phase in which individuals involved are motivated as a high (self-) efficacy increases the likelihood of a successful implementation of a new financing system.

The information that is gathered within this chapter is taken as a theoretical framework for the research. The following four propositions are determined in order to be able to give answer to the research question.

## 2.8 Propositions

1. *Health care consists of the two logics of business-like health care and medical professionalism as identified by Reay and Hinings (2009).*
2. *Logics influence the perceived changes and perceived implementation of a new financing system.*
3. *The (self-) efficacy of stakeholders differs between countries and logics.*
4. *Clinic A can learn from the implementation of a new financing system in the Netherlands and other organizations in Germany and these lessons learned can facilitate the implementation process.*

### 3. Methods

This chapter provides information about the construction of the research. First, there is a description of the research setting and research design. Second, the data collection is illustrated and third the analysis of the data is explained.

#### 3.1 Research setting

This research was designed on behalf of clinic A, which is a psychiatric clinic located in Germany. Clinic A belongs to an association consisting of eleven adult clinics and four psychiatric clinics for children and teenagers. Therefore, clinic A is also affected by the changes that take place due to the implementation of the PEPP-system.

The research was performed in psychiatric clinics in Germany and the Netherlands. The interviews conducted in the Netherlands were all conducted within clinic B. The interviews conducted in Germany were conducted in four different clinics. There were six interviews in clinic A, three interviews in clinic C, three interviews in clinic D and one interview in clinic E. Table 1 delivers information about the respondents that were interviewed. In total three board members, four controllers, four psychiatrists, four nurses and one quality manager were interviewed.

**Table 1 – Information about respondents**

Respondent	Clinic	Information about respondent
<i>External interviews (Netherlands)</i>		
Respondent 1	Clinic B	Board member, male, age indication: 55
Respondent 2	Clinic B	Controller, male, age indication: 35
Respondent 3	Clinic B	Psychiatrist, male, age indication: 55
<i>Internal interviews (Germany)</i>		
Respondent 4	Clinic A	Controller, male, age indication: 55
Respondent 5	Clinic A	Board member, male, age indication: 45
Respondent 6	Clinic A	Controller, male, age indication: 45
Respondent 12	Clinic A	Nurse, female, age indication: 40
Respondent 14	Clinic A	Psychiatrist, male, age indication: 40
Respondent 15	Clinic A	Psychiatrist, female, age indication: 55
<i>External interviews (Germany)</i>		
Respondent 7	Clinic C	Controller, male, age indication: 40
Respondent 8	Clinic C	Nurse, female, age indication: 50
Respondent 9	Clinic C	Nurse, male, age indication: 40
Respondent 10	Clinic D	Quality management, male, age indication: 40
Respondent 11	Clinic D	Psychiatrist, male, age indication: 60
Respondent 13	Clinic D	Nurse, male, age indication: 50
Respondent 16	Clinic E	Board member, female, age indication: 40

#### 3.2 Research design

In order to answer the research question a qualitative, exploratory research was performed. It was chosen for a qualitative, exploratory research in order to collect data regarding the perceptions of stakeholders and obtain

insight into the consequences for the stakeholders due to the implementation of a new financing system. The research was performed by doing literature research and conducting interviews with stakeholders in several clinics.

The research question was answered by investigating four propositions. Within the first proposition the logic of each of the respondents was determined by using statements. Two statements were used of which one statement represents the logic of the management and the other statement represents the logic of the medical professional. Respondents were able to give marks from one to six, where one point means '*I totally agree with statement one*' and six points mean '*I totally agree with statement two*'. The logic of the respondents was determined by calculating their score. Within the second proposition the influence of logics on the perceived implementation process and changes was considered. Within the third proposition the efficacy of stakeholders regarding the changes was investigated. Again, statements were used to study the (self-) efficacy of stakeholders. These statements focus on the tasks the involved stakeholders have during the implementation process. Respondents were able to give marks from one to six, where one point means '*no trust into the capacities*' and six points mean '*full trust into the capacities*'. Furthermore, for the interviews conducted in the Netherlands, this question determined the self-efficacy before the changes took place as well as the (self-) efficacy after the changes took place. The fourth proposition focussed on the lessons that can be learned from other organizations regarding the implementation of a new financing system. Within this proposition enablers and barriers for the implementation process were examined.

### 3.3 Data collection

First of all, literature research about logics, self-efficacy and TPB was carried out in order to define the field of the research. Additionally, literature research helped to test the impact of the implementation of a new financing system on involved stakeholders. The literature and theories together formed the basis for the development of the interview questions.

These interview questions provided detailed information about the experience of clinics with a new financing system. Qualitative interviews were chosen as a research method since there are only a few clinics in Germany that are already implementing the PEPP-system. Therefore, it was not possible to conduct a quantitative research. Additionally, due to the recent implementation there was no literature available on the implementation and consequences of the PEPP-system. The objective of qualitative research is conceptualization and exploration (55). Therefore, in literature it is suggested to have a small, diverse sample for exploration studies (56). In total 16 qualitative interviews were conducted as this was sufficient to gain valid information saturation. Additionally, there were exploratory discussions with other stakeholders.

Semi-structured in-depth interviews were chosen to make sure that all respondents got the same nature of questions, while giving them enough space for their own perspective. In addition to semi-structured in-depth interviews there were statements on a Likert scale in order to be able to give realistic remarks. These



statements were used to answer the propositions regarding logics and (self-) efficacy. The logic statements regarding decisions about treatments and the autonomy of medical professionals were based upon the logic statements of Koelewijn (2012) and the statements regarding treatment protocols emanated from research by Reay and Hinings (2009) (41,42). The remaining statements were based upon remarks that came forward during preliminary studies. Each statement regarding logics existed of two extremes either representing the logic of the business-like health care or the logic of the medical professionalism. These statements were used in order to determine the position of the respondent with respect to the two logics.

The statements regarding (self-) efficacy were based upon literature by Janssen et al. (2010) and data derived from a preliminary study (18). The key points and tasks in the implementation process for professionals and management that came forward from literature and the preliminary study were used in order to determine the (self-) efficacy of stakeholders. Also, before the interviews were conducted there was a pilot interview to guarantee, that the interview questions were valid i.e. that the questions would lead to the answers they were supposed to. This ensured comprehensiveness and unambiguity of the interviews.

The interview questions focused on the perceptions of stakeholders of different logics on the implementation of a new financing system and the lessons learned from the implementation process. The interviews were conducted within four psychiatric clinics in Germany and one psychiatric clinic in the Netherlands. It was chosen to conduct interviews in the Netherlands since they already have completed the implementation of a similar financing system. Therefore, these Dutch and German clinics can make suggestions about the hurdles and the consequences while implementing a new financing system. Within most clinics interviews were conducted with one representative of the management, one psychiatrist and one nurse. In this research, nurses have not been mentioned separately since they are subordinated to psychiatrists and therefore it was expected that they were embedded in the same logic. For the purpose of this research psychiatrists and nurses were referred to as medical professionals. Yet, if specifically a psychiatrist or a nurse was considered they were referred to as psychiatrist or nurse. Additionally, there were internal, qualitative interviews in clinic A in order to get insight into the expectancies of the clinic and the changes that have occurred until now.

### **3.4 Data analysis**

After the respondents were asked for their permission, all interviews were voice-recorded. Also, the respondents were ensured that the interviews were anonymous. The data of the interviews was verbatim transcribed. The transcript was coded, using the software ATLAS.ti. The coding part was partly deductive and partly inductive and allowed for distillation of all relevant information from the interview. The deductive part came forward as a number of the codes were determined beforehand. These codes can be found in Appendix C of this research. The inductive part entailed labels coming forward from the transcript, thus the data structured the codes. During the axial coding part there were multiple labels, which were clustered in different topics with the same characteristics. After coding the transcript, the propositions were analysed with this information. Finally, the propositions helped to answer the research question.

Next to the analysis of the interviews that was transformed by coding the data, the responses on the statements were analysed by using Excel. The statements regarding logics were analysed by calculating the score of each of the respondents. Respondents with a score between zero and nine were classified as '*deeply embedded*' into the logic of medical professionalism and respondents with a score between 27 and 36 were acknowledged as '*deeply embedded*' into the logic of business-like health care. Furthermore, respondents with a score between ten and 13 and 23 and 26 were considered as '*moderately embedded*' into their logic. Also, respondents with a score between 17 and 19 were classified as '*hybrid*', which means that aspects of the business-like health care logic and aspects of the medical professionalism both exist. Additionally, respondents with a score between 13 and 16 were classified as '*embedded*' in the logic of medical professionalism. Respondents with a score between 20 and 23 were considered as being '*embedded*' in the logic of business-like health care. The statements regarding (self-) efficacy were analysed by making figures per sub-group. These figures helped to compare different sub-groups with each other. The analysis of the statements had a qualitative character, since it was not possible to make any quantitative statements based on 16 interviews. A quantitative analysis would have delivered an unrealistic picture of the situation, where a qualitative analysis is well-grounded.

## 4. Results

This chapter contains the results concerning the perceptions and (self-) efficacy of stakeholders regarding the implementation of a new financing system. The results are discussed per proposition and are based upon the information received during the interviews. First, the logic of each of the respondents is determined. Second, the perceptions of the stakeholders are analysed. Third, the (self-) efficacy of the respondents regarding the implementation of a new financing system is ascertained. At the end of this chapter the lessons learned from other organizations are discussed.

### 4.1 Different logics in psychiatric health care

**Proposition 1: “Health care consists of the two logics of business-like health care and medical professionalism as identified by Reay and Hinings (2009).”**

Statements were presented to the respondents in order to determine their logic. The answers given per respondent are provided in Table 5 in Appendix D. As this research has a qualitative character, the statements are filled up with information from semi-structured interviews.

Table 2 provides an overview of the respondents and their function within the clinic. Additionally, the expected logic of the respondents, which is linked to their function, is shown. Board members, controllers and quality managers are expected to belong to the business-like health care logic, whereas psychiatrists and nurses are expected to belong to the logic of medical professionalism. Table 2 shows that, based upon their profession, eight respondents are expected to belong to the logic of business-like health care and eight respondents are expected to belong to the logic of medical professionalism. Therefore, the number of respondents belonging to the two logics is expected to be equally divided.

**Table 2 - Expected logic per respondent based on function**

Respondent	Function	Expected logic
Respondent 1	Board member	Business-like health care
Respondent 2	Controller	Business-like health care
Respondent 3	Psychiatrist	Medical professionalism
Respondent 4	Controller	Business-like health care
Respondent 5	Board member	Business-like health care
Respondent 6	Controller	Business-like health care
Respondent 7	Controller	Business-like health care
Respondent 8	Nurse	Medical professionalism
Respondent 9	Nurse	Medical professionalism
Respondent 10	Quality manager	Business-like health care
Respondent 11	Psychiatrist	Medical professionalism
Respondent 12	Nurse	Medical professionalism
Respondent 13	Nurse	Medical professionalism
Respondent 14	Psychiatrist	Medical professionalism
Respondent 15	Psychiatrist	Medical professionalism
Respondent 16	Board member	Business-like health care

## Logics determined in the Netherlands

### Logics of managers

There were two Dutch respondents that were expected to be embedded in the managers' logic due to their function. One of these two respondents is belonging to the managers' logic and one is classified as *'hybrid'*, as he scored 17 points on a scale, where a score below 18 classifies a respondent as belonging to the medical professionals' logic.

The Dutch managers correspond in their answers on statement two and three as they both think that treatment plans should be developed by psychiatrists and patients (statement two) and that medical professionals that work for the management of a clinic have sufficient autonomy (statement three). The largest difference in answers occurs for statements one and five. For both statements respondent one is more embedded in the management logic than respondent five. Also, both respondents are still embedded in the management logic regarding these statements as they think that medical professionals should follow management protocols in making decisions (statement one). Additionally, they suggested that the interests of clinics should be determined by decisions of the government (statement five). The answers of Dutch managers per statement can be seen in Figure 2.

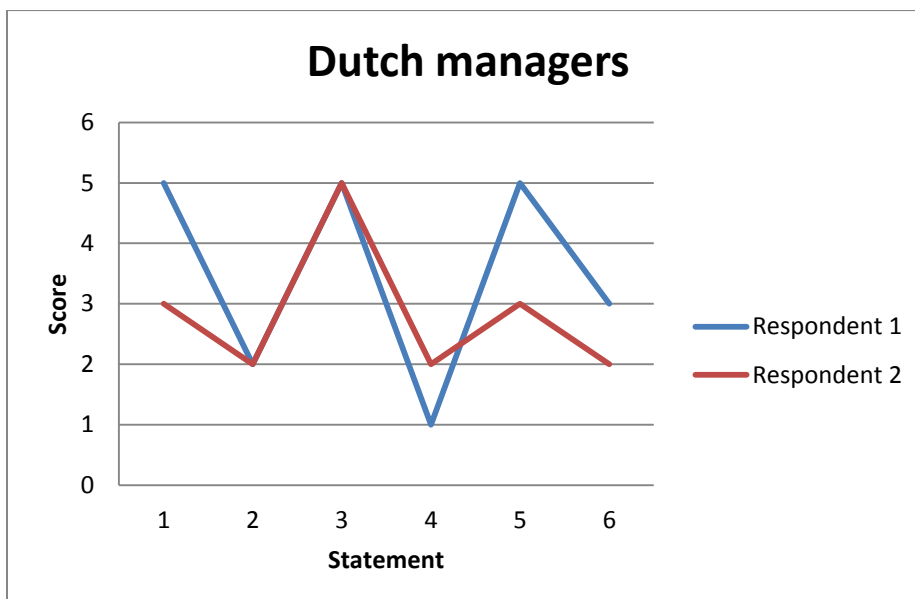


Figure 2 - Statements Dutch managers

### Logics of medical professionals

There was one interview with a Dutch medical professional that was expected to be embedded in the medical professionals' logic. The analysis of the statement shows that this respondent is *'moderately embedded'* into the medical professionals' logic as he scored ten points on the scale.

In Figure 3 it can be seen that the Dutch medical professional is embedded in the logic of medical professionalism for all statements as his answers vary between the score of one and two points. This embeddedness of medical professionals is explained by one respondent, who indicated that medical professionals do not want to think about the problem of scarcity, but that they want to treat patients.

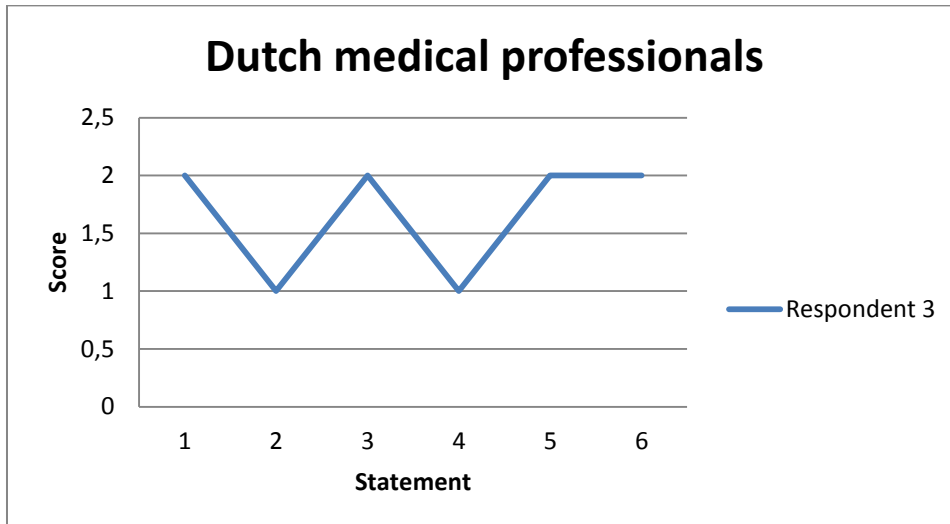


Figure 3 - Statements Dutch medical professionals

### Logics determined in Germany

#### Logics of managers

The six German managers that were interviewed were expected to belong to the business-like health care logic. Two of these respondents are actually belonging to the medical professionals' logic. One of them is '*moderately embedded*' into the logic of the medical professionalism, as he scored eleven points. On the contrary, one of the respondents is '*deeply embedded*' into the logic of business-like health care since he scored 29 points and a score above 27 points classifies deep embeddedness.

As can be seen in Figure 4, the answers of German managers vary to a large extent. The largest difference appears between respondent six and seven, as respondent seven actually belongs to the logic of medical professionalism and respondent six is '*deeply embedded*' into the management logic. Statement three shows that most respondents are neutral about the question whether the autonomy of medical professionals that are working for the management of a clinic is decreasing or not. The largest variation appeared in statement four and five whether medical professionals should have a say in clinic policy (statement four) and whether the interests of the clinic need to be aligned with the interests of medical professionals (statement five). Overall, managers are not as deeply embedded in their own logic as medical professionals are. Overall managers are not as deeply embedded into their own logic as medical professionals are. One respondent explained this by the fact that the task of managers is to focus on financial issues but that they also need to focus on the treatment of patients since that is what delivers money.

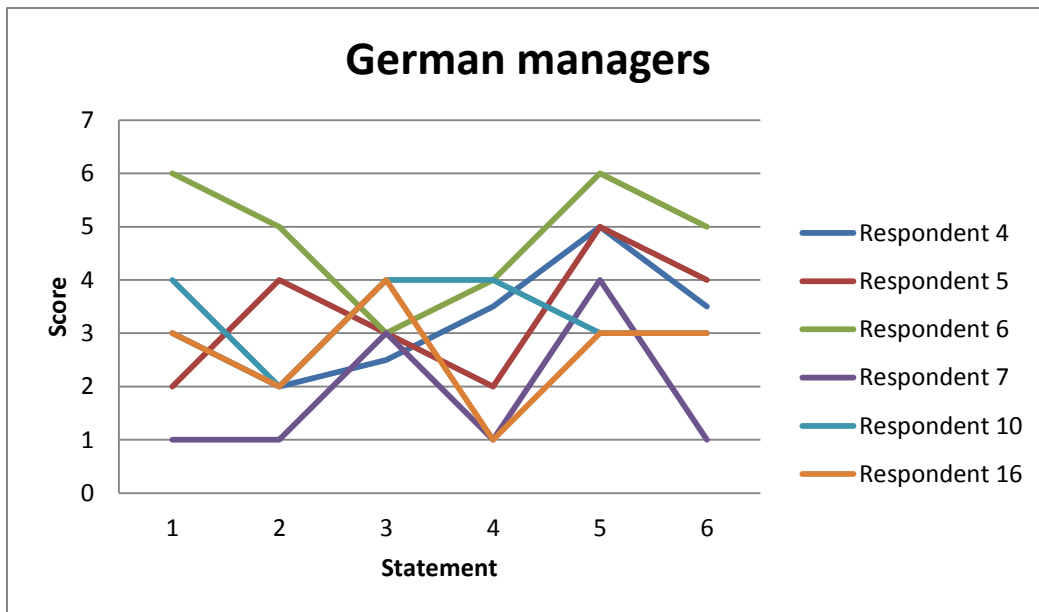


Figure 4 - Statements German managers

#### Logics of medical professionals

Beforehand, it was expected that seven German respondents are embedded in the logic of medical professionalism' due to their medical function. Five of these respondents correspond to this logic. One of the respondents could not be ascribed to a certain logic, as he did not mark the statements. The other respondent belongs to the logic of business-like health care as he scored 20 points on a scale, where a score higher than 18 points classifies embeddedness into the managers' logic.

As can be seen in Figure 5, German medical professionals are mostly on the medical professionals' side. Though, there are two outliers: Two respondents stressed that medical professionals that are working for the management of a clinic have sufficient autonomy (statement three) and even more medical professionals are on the management side regarding the statement that the interests of the clinic should be determined by decisions of the government (statement five). German medical professionals marked statement five with such a high score, as the implementation of the PEPP-system was a government decision.

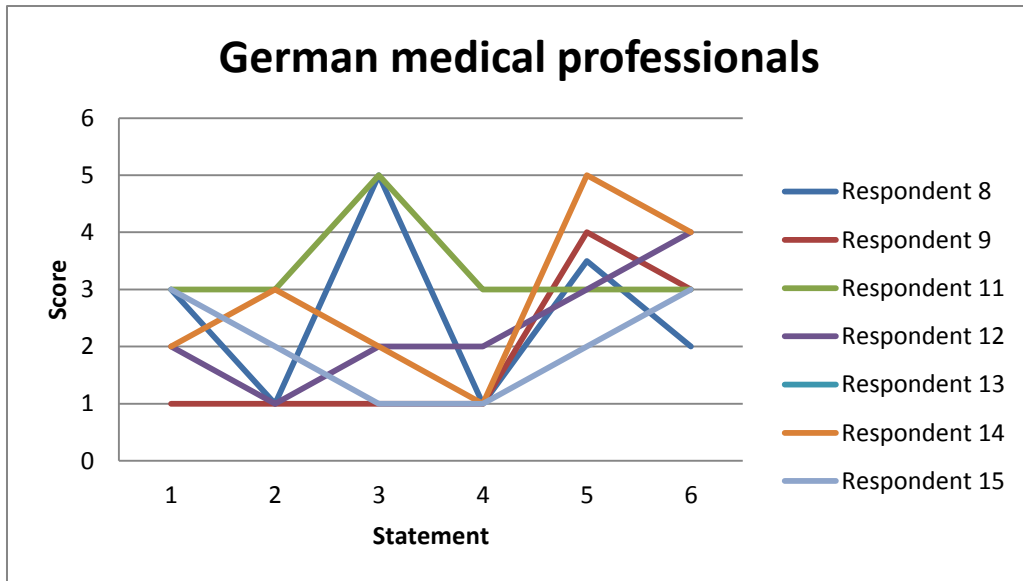


Figure 5 - Statements German medical professionals

### Summary

The proposition 'Health care consists of the two logics of business-like health care and medical professionalism as identified by Reay and Hinings (2009).' can be accustomed. A distinction can be made between the logics that are detected among managers and the logics that are detected among medical professionals. The differences in logics that are detected among managers and medical professionals are found in both Germany and the Netherlands. Therefore, the differences in logics cannot be ascribed to the Dutch or German culture.

Whereas eight respondents were expected to be embedded in the medical professionals' logic, nine respondents are actually embedded in this logic. Additionally, whereas eight respondents were expected to be embedded in the business-like health care logic, six respondents are actually embedded in this logic.

Table 3 provides a final overview of the expected logics and the actual logic of each of the respondents. As the actual logic of the respondents was determined, it is investigated in what manner logics influence the perceived changes and perceived implementation of a new financing system.

**Table 3 - Expected and Actual logic per respondent**

Respondent	Clinic	Function	Expected logic	Actual logic
Respondent 1	Clinic B	Board member	Business-like health care	Business-like health care
Respondent 2	Clinic B	Controller	Business-like health care	Medical professionalism
Respondent 3	Clinic B	Psychiatrist	Medical professionalism	Medical professionalism
Respondent 4	Clinic A	Controller	Business-like health care	Business-like health care
Respondent 5	Clinic A	Board member	Business-like health care	Business-like health care
Respondent 6	Clinic A	Controller	Business-like health care	Business-like health care
Respondent 7	Clinic C	Controller	Business-like health care	Medical professionalism
Respondent 8	Clinic C	Nurse	Medical professionalism	Medical professionalism
Respondent 9	Clinic C	Nurse	Medical professionalism	Medical professionalism
Respondent 10	Clinic D	Quality manager	Business-like health care	Business-like health care
Respondent 11	Clinic D	Psychiatrist	Medical professionalism	Business-like health care
Respondent 12	Clinic A	Nurse	Medical professionalism	Medical professionalism
Respondent 13	Clinic D	Nurse	Medical professionalism	-
Respondent 14	Clinic A	Psychiatrist	Medical professionalism	Medical professionalism
Respondent 15	Clinic A	Psychiatrist	Medical professionalism	Medical professionalism
Respondent 16	Clinic E	Board member	Business-like health care	Medical professionalism

## 4.2 Different perceptions in a new financing system

**Proposition 2: “Logics influence the perceived changes and perceived implementation of a new financing system.”**

Qualitative interviews were conducted in order to determine the perceived changes and perceived implementation of the stakeholders. The respondents were asked what changes occurred and how the implementation process was established. Thereafter, they were interviewed about their perception of the changes and how the implementation process took place.

### Perceived changes and implementation in the Netherlands

#### Perceptions of managers

##### Perceived change by managers

Dutch managers are positive about the intention of the DRG-system. They stressed that the DRG-system is desirable and that it is better to have a financing system that is based upon diseases than a financing system that is based upon performances or amount of contacts. Also, the managers stated that the DRG-system is a better system since clinics are paid for clinical outcome now.

##### Perceived implementation by managers

Although Dutch managers are positive about the intention of the DRG-system, their evaluation of the implementation process is negative. They indicated that the transition phase was too long and therefore it took too much time for employees to feel the actual consequences of the implementation of the DRG-system. Additionally, one Dutch manager indicated that the turnover costs clinics a lot of money as amongst others employees need to be trained.



## **Perceptions of medical professionals**

### Perceived change by medical professionals

The perception of the Dutch medical professional about the new financing system is mostly negative. The respondent complained about the low flexibility of the DRG-system and the fact that the DRG-system is related to the 'Gausse curve' since not all patients can be defined within these averages and since the setting of a diagnosis in psychiatric health care is only a snapshot. To put it differently this implies for example that patients with comorbidity are not pictured correctly within the DRG-system. Furthermore, the Dutch medical professional perceived the DRG-system as more protocolled, which leads to more time being spent on patients indirectly.

### Perceived implementation by medical professionals

In addition to the negative perception of the DRG-system itself, the Dutch medical professional had a negative perception of the implementation process. He acknowledged that the implementation would have been better if the content was taken into account by involving medical professionals during the implementation. Yet, he did not have the idea that the logic of medical professionalism was considered enough during the implementation process.

## **Perceived changes and implementation in Germany**

### **Perceptions of managers**

#### Perceived change by managers

The perceptions of German managers on the PEPP-system are mixed. On the one hand, German managers indicated that the PEPP-system was overdue, as clinics could not afford the old system anymore. Additionally, it was suggested that it is desirable to work in the direction of dismissal. On the other hand, German managers criticized that the special features of clinics are not considered and therefore that the PEPP-system is not differentiated enough. Furthermore, German managers are scared that the implementation of the PEPP-system leads to a reduction of the number of employees. Most clinics receive less money due to the PEPP-system and the only cost unit that can economize is the employee unit as there are no other cost units within psychiatric health care. It is, however, indicated that the tasks of employees like therapies cannot be taken over by machines and that therefore the attention for patients will decrease. Hence, a reduction of the number of employees will have fatal consequences for the quality of care in psychiatric clinics.

#### Perceived implementation by managers

German managers are positive about the implementation of the PEPP-system. They mentioned that the multidisciplinary collaboration became much better and that it led to more discussion and exchange of information between employees. In addition to collaboration, German managers acknowledged that a top down implementation is perceived as positive, as most employees are not concerned about all details of the PEPP-system, but only what it changes for them.

## **Perceptions of medical professionals**

### Perceived change by medical professionals

In contrast to German managers, most German medical professionals are negative about the PEPP-system. Several medical professionals stressed that difficult patients and special features of clinics are not pictured correctly, as the PEPP-system is designed on averages. Also, it is criticized that due to an increased documentation, the time spent with the patient is decreasing. Additionally, a medical professional complained about the ambulant system in Germany. He pointed out that if the length of stay in psychiatric clinics is reduced the ambulant system gets a bigger role within psychiatric health care. However, currently the ambulant system is not perceived as good enough by this respondent. This criticism can, amongst others, be ascribed to the fact that it takes a long time to schedule an appointment with a psychiatrist.

### Perceived implementation by medical professionals

German medical professionals have mixed perceptions about the implementation of the PEPP-system. On the one hand, it is stressed that the transition phase requires a lot of resources like for example commitment of employees that could better be used for other aspects like an improvement of the quality of care. Additionally, it was acknowledged that the changes had a rough definition and therefore there was nearly no variance in implementing the PEPP-system.

On the other hand, medical professionals evaluated the multidisciplinary groups during the implementation positively, as this ensures that all logics are considered. Also, they assumed that the involvement of all logics supports the implementation process. In addition, medical professionals indicated that a top down implementation is the only possibility to implement such a big change. In this context a top down implementation means that managers and medical professionals that are high in the hierarchy are involved in the implementation process. It is suggested that if employees of all layers would be involved, these employees would need to prepare a lot as they first need to understand the whole system.

## **Summary**

The proposition *'Logics influence the perceived changes and perceived implementation of a new financing system.'* can be confirmed. It can be acknowledged that there are a lot of agreements between managers in Germany and the Netherlands and medical professionals in Germany and the Netherlands. During the interviews it was found that stakeholders of different logics have different perceptions. Overall, medical professionals were mostly negative about the new financing system, as they are sceptic regarding the consequences for their patients. Managers, on the other hand, were more positive about the implementation of a new financing system, as they believed this would enhance the efficiency of health care.

In addition to the perception of the system and the implementation process of stakeholders, it is also important that stakeholders have a certain (self-) efficacy to implement the changes. Therefore, the (self-) efficacy of stakeholders regarding the implementation of a new financing system will be researched next.

**4.3 (Self-) efficacy of stakeholders**

**Proposition 3: “The (self-) efficacy of stakeholders differs between countries and logics.”**

This chapter focuses on the (self-) efficacy of stakeholders towards the implementation of a new financing system. Statements were presented to the respondents in order to determine the trust stakeholders have in themselves and other stakeholders regarding their capabilities of implementing a new financing system. The statements regarding equipment, codes, accounting and transparency of the management determine the efficacy regarding managers. The statements with reference to diagnoses, documentation, changes and transparency of medical professionals define the efficacy regarding medical professionals.

**(Self-) efficacy of managers**

Figure 6 provides the (self-) efficacy of managers before (*German managers & Dutch managers (1)*) and after (*Dutch managers (2)*) the implementation. The (self-) efficacy of managers before the implementation varies between the score of three and five points, which indicates that overall managers are positive on the capabilities of managers and medical professionals to perform their tasks within the implementation of a new financing system. Also, it should be noted that the expected (self-) efficacy of German managers is higher in comparison to the expected (self-) efficacy of Dutch managers before the implementation.

The (self-) efficacy of managers after the implementation varies between the score of four and six points implying that the (self-) efficacy of Dutch managers is higher after the implementation.

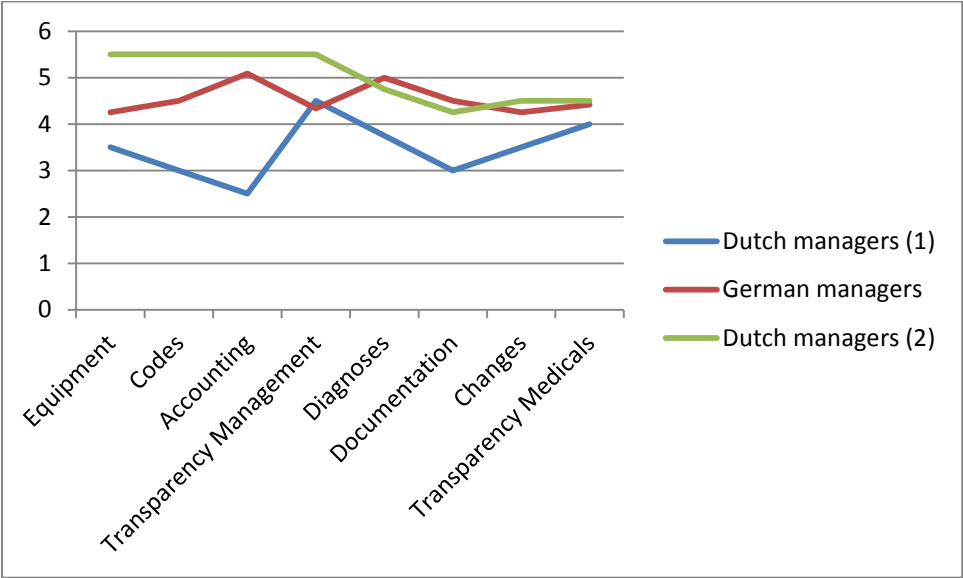


Figure 6 - (Self-) efficacy of managers

### (Self-) efficacy of medical professionals

Figure 7 provides the (self-) efficacy of medical professionals before (*Dutch medical professionals (1)* & *German medical professionals*) and after (*Dutch medical professionals (2)*) the implementation. The (self-) efficacy before the implementation varies between a score of two and six points, which indicates that the (self-) efficacy of medical professionals is lower than the (self-) efficacy of managers. Also, it is noticeable that the expected (self-) efficacy of German medical professionals is higher than the expected (self-) efficacy of Dutch medical professionals before the implementation. The higher (self-) efficacy of German medical professionals might be explained by the fact that the state of implementation of German and Dutch clinics was different. Where Dutch respondents answered these statements before the implementation took place, most German clinics were already working on the implementation.

The (self-) efficacy of medical professionals after the implementation varies between the score of two and five points. As can be seen in Figure 7, the (self-) efficacy of Dutch medical professionals became lower after the implementation. One reason for the lower (self-) efficacy of Dutch medical professionals is that they did not expect the big impact of financial factors.

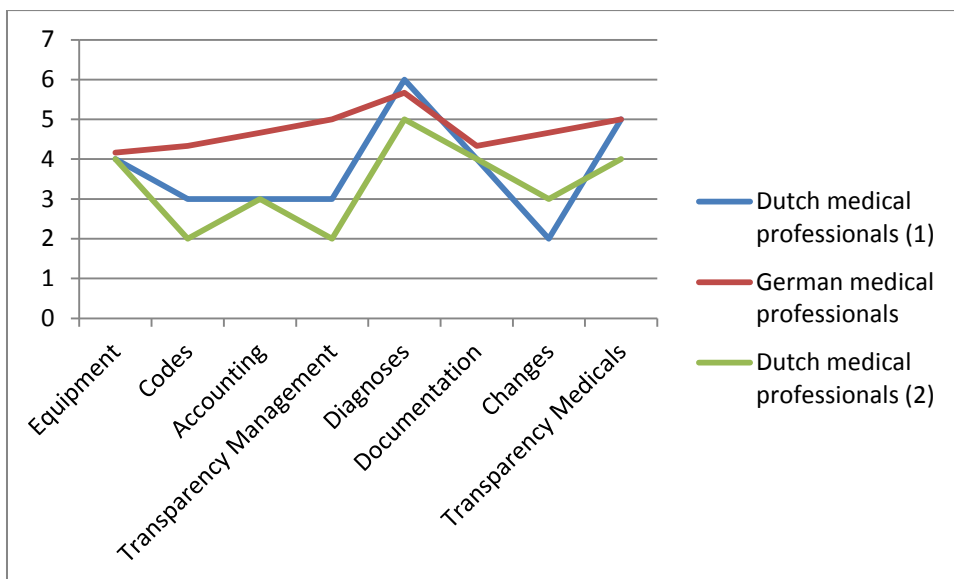


Figure 7 - (Self-) efficacy of medical professionals

### Summary

The proposition that (self-) efficacy differs between countries and logics can be confirmed. The (self-) efficacy of managers is higher than the (self-) efficacy of medical professionals. In addition, beforehand the (self-) efficacy of German managers and medical professionals is higher than the (self-) efficacy of Dutch managers and medical professionals. Furthermore, after the implementation the (self-) efficacy of Dutch managers is higher than before, whereas the (self-) efficacy of Dutch medical professionals is decreasing.

In addition to the definition of (self-) efficacy it is also considered which lessons can be learned from other organizations that are leading in the implementation of a new financing system.

#### 4.4 Lessons learned

**Proposition 4: “Clinic A can learn from the implementation of a new financing system in the Netherlands and other organizations in Germany and these lessons learned can facilitate the implementation process.”**

The respondents were asked which enablers and barriers they perceived during the implementation of a new financing system.

##### Lessons learned in the Netherlands

###### Managers

Dutch managers perceived two main barriers during the implementation of the DRG-system. Firstly, they stressed that it is a barrier if employees do not consider the future consequences regarding the implementation as their main focus is usually put on their daily tasks instead of on the implementation of a new financing system. This might result in employees not taking the new financing system very serious. Secondly, it is indicated by Dutch managers that the employment of psychiatrists can be a barrier, as this reduces efforts of medical professionals. It is stated that employed medical professionals reduce their efforts since they have the feeling that it does not matter for them whether performances are documented or not.

Next to these barriers, one Dutch manager also perceived an enabler during the implementation of the DRG-system. The enabler that is named by him is feedback on performances. Feedback is mentioned as it helps to show employees in which areas they can improve their performances.

###### Medical professionals

The Dutch medical professional perceived one main barrier during the implementation of the DRG-system. This barrier is the fact that employees do not see the consequences.

In addition to this barrier, which is also mentioned by Dutch managers, the medical professional also listed enablers that would have enhanced the implementation process. First, the medical professional implied that it is an enabler, if the consequences of the new financing system are discussed before. Second, feedback on performances is acknowledged as an enabler by the medical professional. Third, working in teams is seen as an enabler by the medical professional, as he expects that teams would consider the content as well.

## Lessons learned in Germany

### Managers

German managers perceived different barriers during the implementation of the PEPP-system. Just like Dutch managers, German managers mentioned that it could be a barrier if employees do not see the consequences. Additionally, German managers pointed out that IT problems might hinder the implementation as IT problems burden the documentation of all performances and a good communication between different systems. Furthermore, one German manager stressed that too little information for employees can lead to uncertainty, which might result in a barrier. Too little information is perceived as a barrier, because it is expected that people will not perform their tasks well if they do not understand the cause of performing it.

Next to these barriers, German managers listed several enablers for the implementation of the PEPP-system. First, managers indicated that multidisciplinary teams support the implementation as this provides the involvement of different specialities and therefore the interests of all stakeholders are considered. Second, one German manager suggested that the *'Kostenträgerrechnung'* has supported the implementation process within that clinic as performances on individual patients are discussed within the corresponding team. Within the *'Kostenträgerrechnung'* the costs per patient per day are considered for patients that were for example much more expensive than other patients. It is assumed that if the corresponding team becomes aware of the costs that appear due to the treatment of patients they start thinking critically about the processes. Third, German managers stated that the implementation process is enabled by being an *'Optionshaus'* since this helps employees to get used to and to evaluate the changes. Clinics that are an *'Optionshaus'* submit their invoice based on the PEPP-system. This invoice is compared to the invoice of the last year. Between 2013 and the end of 2016 the PEPP-system and thus the *'Optionsphase'* is based on the principle of budget neutrality. Therefore, clinics still get paid the remuneration of the last year and cannot make loss due to implementing the new financing system. By participating in the *'Optionsphase'* clinics get the chance to already carry out first changes and to analyse the influence of the implementation on the PEPP-system.

### Medical professionals

German medical professionals named two barriers they noticed during the implementation of the PEPP-system. First, German medical professionals stressed that too little information for employees can lead to uncertainty. Hence, this could become a barrier as it is expected that employees will not perform their tasks very well if they do not understand why they have to perform them. Second, the high formal requirements of the PEPP-system are seen as a barrier by medical professionals, as it is difficult to meet these requirements and to perform them as requested.

Aside from these barriers, German medical professionals perceived several enablers during the implementation of the PEPP-system. They suggested that feedback on their performances would have helped during the implementation by showing employees how they can improve their performances. Furthermore, German

medical professionals stated that the implementation process is enabled by being an *'Optionshaus'* as this helps employees to get used to and to evaluate the changes.

### Summary

The proposition *'Clinic A can learn from the implementation of a new financing system in the Netherlands and other organizations and these lessons learned can facilitate the implementation process.'* cannot be confirmed yet, due to the fact that it is not known how well clinic A will perform with these lessons learned. However, it is assumed that if clinic A considers the barriers and enablers that are listed, it may facilitate their implementation process.

There are similarities between the barriers and enablers perceived in Germany as well as in the Netherlands. This might be explained by the fact that they need to take the same steps in a similar setting to perform the implementation of a new financing system. In order to learn something from other clinics it is important that these barriers and enablers are taken into consideration. Therefore, recommendations are given to clinic A in the chapter *'discussion'* of this research.

## 5. Discussion

This chapter first outlines the relevance of this research and the research findings. Thereafter the research findings are compared to the literature. These findings form the basis for answering the research question. Then there is a discussion on the impact of cultural differences and the relevance of the research. Furthermore, some points of attention regarding the background of this research and its strengths and limitations are discussed in a critical light. Additionally, recommendations are given to clinic A to facilitate the implementation of the PEPP-system. Lastly, there are recommendations for future research.

### 5.1 Relevance of this research

The aim of this research was to examine and evaluate the perception of stakeholders of different logics on the implementation of a new financing system and their (self-) efficacy. In order to do so, research was performed in five psychiatric clinics in Germany and the Netherlands, where 16 stakeholders were interviewed. This research adds information on the perceptions of institutional logics and their (self-) efficacy in psychiatric health care. New insights were gained on how institutional stakeholders perceive the different aspects of an implementation process and how they evaluate these perceptions afterwards. Additionally, factors were identified that are seen as barriers or enablers for the implementation of a new financing system.

### 5.2 Research findings

#### Findings

The propositions regarding logics, perceived implementation and (self-) efficacy are supported by this research. The proposition with respect to the lessons learned cannot be confirmed so far. Yet, it is presumed that the lessons learned can help clinic A to facilitate their implementation process.

The first proposition *'Health care consists of the two logics of business-like health care and medical professionalism as identified by Reay and Hinings (2009).'* can be confirmed, as a distinction can be made between the logics that are detected among managers and the logics that are detected among medical professionals. This observation is in accordance with the hypothesis of Reay and Hinings (2009) that two logics can be differentiated within health care, namely business-like health care and medical professionalism. These form the basis for the logics that are determined. The differences in logics between managers and medical professionals appear in Germany and the Netherlands. Therefore, it is unlikely that the differences in logics are due to differences in culture.

The second proposition *'Logics influence the perceived changes and perceived implementation of a new financing system.'* can be confirmed as managers and medical professionals have different perceptions on the changes that appear due to a new financing system and the implementation process. The results of this research do not explain the occurrence of different perceptions. However, it is expected that managers and medical professionals perceive the implementation of a new financing system in different ways as their logics



provide different principles. This is in accordance with research by Klopper-Kes et al. (2011) who found that managers and medical professionals “*differ in their goal setting*” (30). Reay and Hinings (2009) suggested that, in general, managers want to increase efficiency and provide cost-effective treatments, whereas medical professionals want to deliver the best care for the individual patient (41). Hence, it can be said that stakeholders with different principles have different aims and therefore perceive changes and the implementation process in different ways. As stakeholders perceive changes and the implementation process in different ways it is assumed that in practice a tailored approach should be developed for the two logics. This tailored approach should be developed for the implementation process and other processes that require commitment of stakeholders of different logics.

The third proposition ‘*The (self-) efficacy of stakeholders differs between countries and logics.*’ can be confirmed. According to the data, it can be inferred that the (self-) efficacy of managers and medical professionals differs in Germany and the Netherlands. The results of this research do not explain the occurrence of differences in (self-) efficacy. However, the differences in (self-) efficacy between logics might be explained by the fact that the new financing system was not desired by medical professionals whereas managers expected the implementation and regarded it as overdue. Additionally, the higher (self-) efficacy of German managers in comparison to Dutch managers before the implementation could be explained by the safety net<sup>1</sup> that is used in Germany, whereas the implementation in the Netherlands took place without a safety net. Also, the (self-) efficacy of Dutch managers increased after the implementation, which could be explained by the experience they have with the DRG-system. Hence, there were some critical aspects before, which seemed easier to handle than expected. This is partly supported, as both Dutch managers mentioned that there is a difference between wanting to perform the changes and being able to perform the changes. They stated that beforehand it was more of an attitude problem, since stakeholders did not want to perform the changes. Recommendations are given in section 5.5 in order to give an indication of what to expect and how they can influence the implementation process in a positive way. As the implementation process improves the (self-) efficacy of stakeholders might increase, which again increases the likelihood of a successful implementation of a new financing system.

The fourth proposition ‘*Clinic A can learn from the implementation of a new financing system in the Netherlands and other organizations in Germany and these lessons learned can facilitate the implementation process.*’ cannot be confirmed yet, as it is not known how well clinic A will perform with the lessons learned. However, it is expected that if clinic A considers the given recommendations, this will facilitate its implementation process. It is noticeable that there are similarities between the barriers and enablers that are perceived in Germany and the Netherlands. The recommendations are given in order for clinic A to learn from the experiences of other organizations.

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<sup>1</sup> The safety net including the ‘*Optionsphase*’ and ‘*Konvergenzphase*’ is expounded in section 5.5

### Answer to the research question

The research question of this research is as follows: *“In what manner do logics and (self-) efficacy of professionals within psychiatric health care influence the perceived implementation of a new financing system and which lessons can be learned from other organizations?”*

The findings of this research suggest that logics influence the perception of stakeholders regarding the implementation of a new financing system. First of all, it is found that there is a difference between the logics that are detected among managers and the logics that are detected among medical professionals. The findings suggest that most managers are embedded in the business-like health care logic, whereas most medical professionals are embedded in the logic of medical professionalism. Second, it is found that logics influence the perceptions of stakeholders regarding the implementation of a new financing system, which could be explained by the different principles of logics. Also, it is advised that since managers and medical professionals perceive the changes and implementation process differently, the implementation process should have a tailored approach. Third, it is investigated that in addition to logics, (self-) efficacy is also important for implementing a new financing system. In this research it is found that logics influence the (self-) efficacy of involved stakeholders. It is suggested that managers have a higher (self-) efficacy than medical professionals. Furthermore, research in other clinics showed that there are a lot of barriers and enablers that need to be considered in order to implement a new financing system successfully. These barriers and enablers found are transformed into recommendations.

From these findings it can be assumed that logics and (self-) efficacy influence the implementation of a new financing system. Logics particularly influence the perception of stakeholders on a new financing system, whereas (self-) efficacy defines the extent to which stakeholders make efforts to implement a new financing system. It is assumed that if the perceptions of stakeholders are positive and their (self-) efficacy is high, this will increase the likelihood of implementing a new financing system successfully (45,46). Additionally, there are a lot of lessons that can be learned regarding the implementation of a new financing system, from benchmarking with other clinics. These lessons learned are summed up as recommendations in section 5.5.

## 5.3 Discussion of the research findings

### Logics

This research found a deep embeddedness of medical professionals into the logic of medical professionalism, which is consistent with the theory of Reay and Hinings (2009). They stressed that medical professionals do not agree with business-like health care since they do not believe that patient care and therefore medical professionals' behaviour should be based upon cost-effectiveness (41). The fact that medical professionals are more embedded in their own logic than managers gives rise to the assumption that their embeddedness may be explained by the Hippocratic Oath. The Hippocratic Oath is taken by physicians in order to ensure that they advocate ethical standards and maintain confidentiality. Additionally, the Hippocratic Oath stipulates that physicians shall do anything in their power to help the patient (57). It is expected that this oath acts as an

underlying principle in the logic of medical professionals (41). Therefore it is assumed that there is a relation between the embeddedness of medical professionals and the Hippocratic Oath. Additionally, it seems from the results of this research that medical professionals do not want to think about the problem of scarcity, but want to treat patients.

Also, the results showed that eight respondents acknowledged that the different logics need to collaborate. This is in accordance with the theory of Reay and Hinings (2009), where four mechanisms are identified to explain in what manner professionals and managers need to collaborate whilst maintaining their identity.

### **(Self-) efficacy**

Moreover, in literature the (self-) efficacy of stakeholders is determined as an important factor regarding how individuals address tasks and challenges (45,46). In other words, trust into the own capacities is increasingly important for implementing change (45). It is even stressed that when facing difficulties, individuals with doubts diminish their efforts, while those with a high (self-) efficacy make greater effort (46). Therefore a high (self-) efficacy increases the likelihood of a successful implementation.

The statements regarding (self-) efficacy that were used in this research defined the efficacy expectancies of the stakeholders. The (self-) efficacy that is found in the Netherlands before the changes is lower than the (self-) efficacy in Germany. This might be explained by the stage of implementation of clinics. The Dutch clinics answered this question regarding their efficacy before the implementation took place, whereas most German clinics answered this question when they were already in the process of implementation. Also, the (self-) efficacy of Dutch managers in their ability to perform the required changes improved after the implementation of the system. Therefore, the experience of Dutch managers showed that the implementation and the impact of a new financing system are not as difficult as expected. Considering the statements, it seems like German respondents already have a high (self-) efficacy, which might increase the likelihood of a successful implementation of the PEPP-system.

The information of the interviews defined the outcome expectancy of the respondents. From the interviews it is implied that medical professionals have low outcome expectancy as they expect the new financing system to have a negative impact on the quality of psychiatric health care. The outcome expectancy of managers is higher as they expect the new financing system to have a positive influence on the costs of psychiatric health care. In order to increase the likelihood of a successful implementation it is important that individuals have faith in their own capacities, which implies having a high (self-) efficacy. In order to achieve a high (self-) efficacy, the efficacy and outcome expectancy should be high. Hence, it is important that individuals trust their own capabilities and trust the requirements of the new system.

### Theory of Planned Behavior

The TPB attempts to forecast behaviour of individuals and it is assumed that intentions are the nearest predictor of behaviour one can get. The intention of individuals is determined by three factors: attitude, subjective norm and perceived behavioural control (53). These three factors do all emerge in this research. The attitude of respondents refers to a positive or negative evaluation of the intended behaviour. This research suggests that the attitude of medical professionals about the new financing system is mostly negative, whereas managers are mostly positive about it. This is reviewed in the results section regarding the perceived changes and perceived implementation. The subjective norm points out the social pressure perceived by individuals while evaluating whether certain behaviour should be performed. This research indicated that due to the fact that both new financing systems are imposed by the government, the subjective norm is high. Moreover, perceived behavioural control is the evaluation of a persons' capacity to perform certain behaviour. Therefore, perceived behavioural control can be compared to the (self-) efficacy, which differs between managers and medical professionals. This is reviewed in the results section regarding (self-) efficacy in chapter four. The results indicate that managers have a higher (self-) efficacy than medical professionals regarding the changes that appear due to the implementation of a new financing system. Additionally, the (self-) efficacy of Dutch managers is higher after the implementation of the DRG-system. The higher (self-) efficacy can be prescribed to the experience of Dutch respondents with the new system.

Based on this analysis, it appears that the intention of medical professionals is mostly negative, whereas the intention of managers is more positive. This could be explained by the fact that medical professionals have a low attitude and (self-) efficacy, whilst managers have a positive attitude and a higher (self-) efficacy. It seems that managers and medical professionals do only correspond regarding the subjective norm as the two financing systems are imposed by the government. In order to change the intentions of medical professionals it is important that their attitude and (self-) efficacy become higher.

### Cultural differences

Hofstede performed different studies on cultures and the influence of cultures on the behaviour of organizations and societies. The study of Hofstede (1993) on '*cultural constraints in management theories*' is considered for an analysis of this research (58). Hofstede (1993) assumed that in Germany workers are highly skilled, responsible and that they expect to get their tasks assigned by their boss (58). Additionally, it is stated that Germany has the lowest rate in leadership but the highest rate in productive roles. This is in contrast to the Dutch situation. A study showed that Dutch people want more freedom in order to adopt their own approach and that they want to be consulted by their boss (58).

Furthermore, Hofstede (1993) identified five dimensions, where the position of a country on these dimensions gives a prediction of the operation of their society. These five dimensions are 1) power distance, 2) individualism, 3) masculinity, 4) uncertainty avoidance and 5) long-term versus short-term orientation.

Although, the focus of this research is not on differences in cultures, some of the five dimensions can be found in this research.

First, accurately as Hofstede (1993) no inequalities among people attracted the intention during this research, which indicates a low power distance in Germany and the Netherlands. Second, from this research it seems that the individualism of German respondents is higher than expected by Hofstede (1993) as the German respondents also want to be involved in the implementation process and they contact responsible stakeholders if there are uncertainties. This implies that they show initiative. Hofstede (1993) identified a higher individualism in the Netherlands than in Germany. Third, no outstanding information was found on the masculinity of neither the German nor the Dutch culture. Hofstede (1993) indicated that masculine mechanisms prevail over feminine mechanisms in Germany, which is in contrast with the Netherlands. Fourth, from this research it seems that Hofstede (1993) was right stating that Germany has higher uncertainty avoidance than the Netherlands. The reason for this is that in Germany the PEPP-system is implemented with a safety net, whereas in the Netherlands there was no safety net. Hofstede (1993) suggested that Germany prefers structured over unstructured situations. Fifth, Hofstede (1993) indicated that the Netherlands are more oriented on the long-term whereas Germany is more focused on the short-term. However, from this research it seems that Germany and the Netherlands both have a long-term orientation as the effects of a new financing system are only seen on the long term.

In summary, Hofstede (1993) suggested that Germans are more open to structured processes that are determined by their boss, whereas the Dutch seem to be open to uncertain situations (58). The findings of Hofstede (1993) regarding power distance, masculinity and uncertainty avoidance might be confirmed, whereas the findings regarding individualism and short-term orientation cannot be affirmed. As mentioned before, it seems that Germany deals with a higher authority system. Due to the high authority system it is not expected that the employment of psychiatrists will be a barrier, since Hofstede (1993) stated that German workers expect to get their tasks assigned (58). Hence, it is expected that if German workers get changes assigned, they will perform these tasks. However, if this might become a barrier, clinics should consider incentives for their psychiatrists to involve in the implementation process. Even though, some of the findings of this research are in accordance with Hofstede (1993), the findings are not generalizable as this was not the focus of this research and the sample size was too small.

## **5.4 Strengths and limitations of the research**

### **Points of attention on the background of this research**

The PEPP-system is being implemented in order to achieve more cost-effectiveness as the psychiatric health care costs keep rising. It is suggested that as cost-effectiveness increases the psychiatric health care costs reduce. However, it might also be the case that the increasing number of psychiatric disorders can be attributed to a better diagnosis, which is not taken into account in the PEPP-system. Additionally, a great part of the costs in health care could also be caused by the fact that a third party pays for performances, which is

not prevented in the PEPP-system either. Also, psychiatric health care has become much more accessible and accepted, which could also have led to an increase in the amount of diagnoses. Within the meaning of a more accessible psychiatric health care, the question appears whether the costs became too high.

Beforehand, it was stated that the Dutch DRG-system and the German PEPP-system are similar to each other. Even though, the DRG-system and the PEPP-system can be compared in general, there are also some differences. The comparison of the two financing systems might be a limitation of this research as it might have happened that results were analysed wrong by reason of the fact that the two situations are not comparable. Examples of the differences between the systems are the safety net, which is used in Germany and the Routine Outcome Measurement (ROM) system that is used in the Netherlands to determine the clinical status of patients at the beginning and at the end of the hospital stay. It could be questioned to what extent the two systems are actually comparable. Also, to the best of the authors' knowledge, there is no literature available about the consequences of the implementation of the PEPP-system. Therefore, reviews from the Netherlands were used.

Furthermore, the considered German clinics do all belong to the same overarching association, which means that the negative consequences due to a new financing system might be limited. A possible explanation for this might be that overarching associations consist of more financial guarantees than small clinics and might resist the implementation longer. Also, due to the comparability of the clinics, the generalizability of this research might be restricted.

The two financing systems have both been implemented as a result of a government decision. Therefore, it is unknown what the effect would have been, if the implementation had taken place due to e.g. a management decision. The resistance of stakeholders might have been bigger due to the fact that they would have had the chance to quit their job and start working for another psychiatric clinic. This was not possible in case of the implementation of the PEPP-system or the DRG-system as all psychiatric clinics had to implement this system.

### **Theoretical framework**

The literature research is based on the theory of logics and (self-) efficacy. It is notable that the majority of the findings of this research are in accordance with the literature. The examined relationship of managers and medical professionals is based upon the model of Reay and Hinings (2009), which is supported by seven respondents. Respondents made a distinction between one party that wants to deliver as good care as possible and one party that deals with financial issues. This could be compared to the logic of medical professionalism and business-like health care. Additionally, the (self-) efficacy and TPB are analysed in this research as in literature it is assumed that they verify the engagement of people in certain activities.

## Interviews

The interviews were conducted in Germany and the Netherlands. By means of the interviews in Germany, information was gathered on the perceptions and (self-) efficacy of stakeholders before and during the implementation of the PEPP-system. However, not all consequences of the PEPP-system could be foreseen as the implementation is not finished yet. This means that some information gathered during the interviews may be based upon assumptions. By means of the interviews in the Netherlands information was gathered on the perceptions and (self-) efficacy of stakeholders after finishing the implementation of the DRG-system. Therefore, the information on the implementation of a new financing system is not only based on expectations.

Furthermore, the implementation of the Dutch DRG-system started in 2008, which means that the interviews that were conducted in the Netherlands were part of a retrospective research. Consequently, it is possible that the information used for the analysis of this research consists of recall bias, which refers to the situation where respondents might not remember the occurrences correctly. Moreover, it is possible that respondents that wanted to be interviewed were more open to the new financing system.

## Validity & Reliability

The findings regarding perceptions and (self-) efficacy are examined in five different clinics in order to consider different situations. This enhances the generalizability of the research. Additionally, attention has to be paid to the fact that the considered clinics have similarities and that the respondents have similar functions in order to guarantee a high comparability and ensure internal validity. Accordingly, respondents of three different functions were interviewed in each clinic: psychiatrist, nurse and controller. The differences in the three functions of respondents lead to different insights on the implementation process. However, not all respondents that were initially selected participated in the interview, which means that one respondent had another function than all other respondents.

The data was based upon participants' individual case information and their experiences. Hence, a critical note should be made regarding the objectivity of the results and thus also on the reliability of the results. However, as this research has a qualitative approach it has to be acknowledged that the objective of qualitative studies is conceptualization and exploration (55). It is assumed that this objective is achieved in this research.

The interviews had a semi-structured character, which means that only the main questions were developed beforehand. This choice was made as this creates openness and respondents can expand their responses. Also, by means of semi-structured interviews, the interviews could be guided by the researcher, to ensure that all important aspects were covered in the interview. However, due to this type of interviews, respondents did not always have the exact same questions. This could have affected the validity of the research.

In order to guarantee internal validity and to give concrete statements for parts of this research, a separate questionnaire with statements was developed beforehand. By operationalizing the concept of logics and (self-)

efficacy in such a way that multiple statements were developed, it was possible to identify the actual logic and (self-) efficacy per respondent. The validity of the interviews is enhanced due to transcribing the interviews verbatim.

## 5.5 Recommendations for clinic A

Advice is provided on how clinic A should deal with the implementation of a new financing system. This advice is based upon literature and experiences of other psychiatric clinics. The recommendations are also based upon observations within clinic A. Additionally, it is important that clinic A monitors the developments of somatic hospitals and trendsetting psychiatric clinics. The recommendations are two-fold: recommendations concerning the system, which take place on a strategic level and recommendations concerning the implementation process, which take place on an operational level.

### System

A strategic choice that was made by the German government is the choice to implement the PEPP-system. Research by Ikkersheim (2013) shows that the DRG-system helped hospitals to enhance their productivity annually by 4.6% between 2006 and 2009 (15). Additionally, this research suggests that the efficiency and accessibility of hospitals improved due to the implementation of the DRG-system (15). Therefore, it is suggested that the choice of implementing the PEPP-system is made in order to increase the accessibility, efficiency and productivity of psychiatric clinics. To cope with the strategic decision made by the German government to implement the PEPP-system, clinics should establish an implementation plan appropriate for their organisation and their organisational culture.

Furthermore, the German government, unlike the Dutch government, decided to use a safety net during the implementation of the PEPP-system. The Dutch Healthcare Authority (NZa) did not decide to use a safety net, as they did not expect too many problems (59). On the contrary, the implementation in Germany consists of an '*Optionsphase*', where the PEPP-system is based on the principle of budget neutrality and the '*Konvergenzphase*', where only a certain percentage of the profit/loss of clinics is paid. It is expected that the safety net enhances the implementation process in Germany as there should not be many fears to use the system. When creating an implementation plan, as recommended, clinics should consider the advantages and disadvantages of using the '*Optionsphase*' in order to get the chance to practice with the new system under realistic circumstances.

Another strategic decision of many psychiatric clinics in Germany is that their psychiatrists are employed. This however does not give medical professionals any incentives to work efficiently. Herzberg (1968) found that the absence of reward, incentives or more status dissatisfy employees (60). Hence, he proposed to provide employees with incentives in order to make them perform their tasks (60). Accordingly, it is advocated that psychiatric clinics come up with incentives for their employees to join the implementation process. Therefore, clinics are recommended to consider self-employment of their psychiatrists in order to give them financial



incentives to work efficiently and join the implementation process. If clinics do not want their psychiatrists to be self-employed it might also be an idea to reward them if they deliver the documentation within a certain amount of days.

For the implementation on operational level, several aspects should be taken into account. These aspects and related recommendations are discussed below.

### Implementation

The recommendations concerning the implementation process, which take place on an operational level are again two-fold: firstly there is a general approach and secondly there is a tailored approach. The general approach is based on recommendations for managers and medical professionals. The tailored approach is based on managers and medical professionals separately.

#### General approach

First, to help medical professionals to see the consequences of the PEPP-system, clinic A should become an *'Optionshaus'*. All German clinics stated that it is an enabling factor to get the chance to practice and evaluate the changes. Also, becoming an *'Optionshaus'* shows managers what the financial impact of the PEPP-system is as being an *'Optionshaus'* means that clinic A submits their invoice based on the PEPP-system. This invoice is compared to the invoice of last year. Notwithstanding that this can help clinic A to get used to the changes, the *'Optionsphase'* will only last until the end of 2016, which means that clinic A needs to start being an *'Optionshaus'* soon, otherwise it might be better to focus on the *'Konvergenzphase'*, starting in 2017. From 2017 onward all affected clinics need to adopt the accounting of the PEPP-system. However, only a certain percentage of their profit/loss is paid, as the *'Konvergenzphase'* is used to convergence the clinic specific remuneration to the future base care value. Additionally, as this research suggested that employees need a higher (self-) efficacy, this enabler helps employees to practice with and get used to the PEPP-system. Therefore, reservations of employees like not being able to perform the required changes should disappear and employees should get a higher (self-) efficacy. The recommendation of becoming an *'Optionshaus'* is applicable to managers and medical professionals. It allows for medical professionals to see the consequences of their work, whereas managers see the financial impact of the PEPP-system.

Second, different respondents in Germany and the Netherlands mentioned that working in multidisciplinary teams helped to improve the implementation process, as this considers all logics. Another advantage of multidisciplinary teams is that medical professionals learn to see the broader context since they are working in a team with other professions. This is in accordance with Klopper-Kes et al. (2011), who cited the idea from research by Ben-Ari (2004) that cooperation improves if there is an increased understanding of each other (30). Additionally, the recommendation to work in multidisciplinary teams is in compliance with Tummers (2010), who advocated more participation of medical professionals. Tummers (2010) stated that an increased participation ensures more experienced influence and a bigger ownership and maybe even a better regulation

as the knowledge of medical professionals is used (61). Therefore, it is recommended that stakeholders of both logics participate in the implementation process by working in multidisciplinary teams. Notwithstanding, it is important that employees do not neglect their daily tasks. This is also confirmed by one respondent, who indicated that he did not want to be involved any further since this would cost a lot of time. The recommendation of working in multidisciplinary teams is also applicable to managers and medical professionals. Medical professionals learn to see the broader context, whilst it might help managers to enhance the implementation process by reason of the feedback of medical professionals.

Additionally, the recommendation of working in multidisciplinary teams has similarities with the contact theory. The contact theory suggests that contact of involved stakeholders enhances cooperation. Also, there are four factors that need to be satisfied in order to be effective: equal status of the groups, support of the authorities, no competition and common goals of the stakeholders (62). This is in accord to Klopper-Kes et al. (2011), who found a way to step into the intergroup conflicts of managers and medical professionals. This is done *“by defining superordinate goals and therewith create a state of interdependence”* (30). Therefore, in projects the groups should focus on defining superordinate goals both groups agree on and on their dependencies to each other to achieve this goal. It is assumed that this improves cooperation of the two groups and supports the reduction of the conflicts. Hence, within hospital settings it might be helpful to take patient related problems into account when determining the aim of the project, as this is a shared value of managers and medical professionals (30). Additionally, collaboration might help to detach managers and medical professionals from their original logics and get them out of their comfort zone. Although, the stakeholders of clinic A are already in contact, this contact should be increased. Accordingly, during the contacts superordinate goals should be developed as this enhances cooperation and creates interdependence.

Third, clinic C introduced the *‘Kostenträgerrechnung’*, where the costs per patient per day are considered. This form of feedback leads to a lot of discussions in their clinic, which has improved the quality of care and the implementation process a lot. Therefore, it is recommended that clinic A also introduces the *‘Kostenträgerrechnung’* and additionally gives employees more feedback on their performances. This recommendation is meant to support the work of medical professionals as it starts discussions about treatment plans of patients. However, these discussions could have an advantage for managers as well as this might help to reduce costs of unnecessary treatments.

#### Tailored approach

First, research by Tummers (2010) indicated that medical professionals complain about the administrative burdens and therefore the increasing time that is spent on patients indirectly (61). Furthermore, he suggested that medical professionals complain about the fact that although there is a rising documentation, this does not represent what is actually happening on the work floor (61,63). In addition to Tummers, German and Dutch respondents gave negative feedback with regard to administrative burdens. A recommendation for clinic A is that administrative tasks are not performed by the medical professionals but that administrative staff is hired for these tasks. This recommendation enhances the implementation process of medical professionals as

additional administrative staff should help medical professionals being able to spend more time with their patients.

Second, Grosskopf (2006) stated that education of employees leads to a better implementation of a new financing system. She indicated that medical professionals have insufficient knowledge about DRG's and registration, which may lead to less motivation. In her research it is implied that education of employees is an important factor for active participation of medical professionals. Hence, it is advised that clinic A educates their employees on the PEPP-system. Education can take place in the form of a seminar for employees of the same department, where the changes for the department are discussed specifically (64). The recommendation of educating employees is meant to help medical professionals to understand the new financing system and should lead to more motivation.

Third, medical professionals of clinic A criticize that they get too little feedback on their performances. Managers of the Dutch clinic and other German clinics mentioned that feedback helps to motivate employees since the employees get insight into what is already working good and where they can improve their performances. Therefore, it is advocated that clinic A provides medical professionals with more feedback on their performances. This will help medical professionals to improve their skills.

Fourth, good communication is essential to motivate stakeholders to implement a certain change (58,61). Communication means that information is given about why the PEPP-system needs to be implemented and what the consequences are (61,66). Moreover, communication can help to explain what the goal of registration is, since some medical professionals feel controlled by more registration (63,64). As employees see the importance of the new financing system they are more motivated to involve in the implementation process. A better communication is in accordance with the statements of employees of clinic A, who complained about other employees that for example do not see the consequences of the new financing system and therefore do not take the PEPP-system very seriously. Furthermore, Klopper-Kes et al. (2011) found that tasks are accomplished more easily if the management is working more transparently (30). This is in accordance with several respondents of other clinics. Hence, it is recommended that clinic A generates a good communication channel to pass on information and explanation, which might lead to more support by employees. Additionally, good communication increases transparency. Therefore, it is important that the management of clinic A explains the planning regarding the PEPP-system to their employees. A good communication channel is required by managers, as this helps them to reach all of their employees.

## 5.6 Future research

A short summary of the findings is that there is a difference between the logics that are detected among managers and the logics that are detected among medical professionals. Additionally, managers and medical professionals have different perceptions about the changes and the implementation of a new financing system and also the (self-) efficacy regarding the changes that appear due to a new financing system related to logics.

Furthermore, for a successful implementation of the PEPP-system it is important that the analysis of TPB is positive as this forecasts the intention of people. The findings from this research should be considered as a starting point for future research as currently there are still many unanswered questions that emerged during this research. These questions and other points of attention are discussed in the following paragraphs.

Further studies are needed to extend the findings from this research. Therefore, more managers and medical professionals should be interviewed as a higher number of respondents should increase the generalizability of the results. Particularly, the amount of interviews in the Netherlands should increase, as within this research only one Dutch clinic was included. Also, the clinics that are considered should not all belong to the same overarching association. Additionally, for future research the statements should be based upon more preliminary studies. If the statements are more specified, they could be used for a quantitative study.

Additionally, eight respondents presumed that although there are different logics within health care, these different logics need to be in balance with each other, which requires collaboration of the different parties. Based on this research there is reason to believe that collaboration might enhance the implementation process. However, this is not dealt with in the current research and therefore future research should be carried out on the impact of collaboration on an implementation process. Also, it would be interesting to investigate the four mechanisms by Reay and Hinings (2009). These four mechanisms describe the manner in which professionals and management need to collaborate in order to achieve common goals, although they still support different logics (41).

A question that arose from this research is why medical professionals are more embedded in their own logic than managers are. From this research it is suggested that the deep embeddedness of medical professionals might be prescribed to the Hippocratic Oath. This is only an assumption and therefore future research should investigate this question. If it is known why medical professionals are more embedded in their own logic it might be easier to find a way to involve them during the implementation process or adapt the implementation process to their principles.

Also, this research supported the proposition that logics influence the perceptions of stakeholders of different logics regarding a new financing system. The results of this research however, do not explain the occurrence of different perceptions. Several expected explanations were discussed before, but the actual reason for different perceptions should be examined in future research.

Apart from this, it seems like the findings of this research do not correspond with the findings of Hofstede (1993) with regard to national cultures. Particularly, the findings regarding individualism and short-term orientation of the German culture seem to differ from the findings of Hofstede (1993). As the findings regarding cultures are not similar, it is unknown to what extent cultures might have an influence on the implementation of a new financing system. Therefore, further research should be undertaken to investigate the influence of differences in cultures on the implementation of a new financing system.

Furthermore, this research could neither support nor disprove the fourth proposition as it is not known to what extent the lessons learned might help clinic A to improve their implementation process. This should be explored in future research, when the impact of the implementation process for clinic A is known. In addition, a similar research should be performed when clinics know what the consequences are and how the changes affect their clinic in order to get insights into the actual barriers and enablers. Therefore, a further research with more focus on actual consequences, barriers and enablers is suggested.

It appears that there are many questions that emerged during this research. Therefore, the findings from this research need to be considered as a starting point for future research.

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## 6. Appendix

### Appendix A

#### Introduction (Germany)

Hello, my name is Julia Schnetgöke and I am working on a research for the University of Twente, which is on behalf of a psychiatric clinic in Germany. As you know the psychiatric health care sector in Germany is busy with the implementation of a new financing system and therefore a lot of changes need to take place.

Some psychiatric clinics already started with the first changes in order to adapt the PEPP-system in its optimal way. There will be interviews in different clinics to get insight in how the changes can be performed and what the consequences of these changes are. The interviews will in particular be used to have a look at the different perceptions while implementing the PEPP-system.

If you agree, the interviews will be voice recorded and transcribed afterwards. The information that comes forward from the interviews will be anonymous and confidential. In order to make sure that everything is analysed in an optimal way I could send you the transcript of the interviews.

In order to implement the new financing system in its optimal way I am interested in obtaining a realistic picture of the changes and consequences. A realistic picture will help to find solutions to possible problems. Therefore I am looking for your personal, honest opinion on this topic. Also, the interview will take about one hour. Do you agree with this? Are there any questions until now?

#### Interview schedule Management & Medical Professional (Germany)

Could you introduce yourself briefly and explain what your function is within the change process due to the implementation of the new financing system?

In which phase of the implementation process is this clinic at the moment?

Are you aware of the existence of different perceptions about the organization of health care within this clinic?

Can you elucidate which perceptions you are aware of?

Please indicate your position for the following statements: (one point means *'I totally agree with statement one'* and six points mean *'I totally agree with statement two'*)

- Medical professionals should be led by their professional autonomy in making decisions (1) vs. medical professionals should follow management protocols in making decisions (2)
- Treatment plans should be developed by psychiatrists and patients in order to get the best quality of care for the individual patient (1) vs. treatment plans should be based on quality indicators and follow management guidelines from the government (2)
- As medical professionals are working for the management of a clinic their autonomy is decreasing (1) vs. medical professionals have sufficient autonomy working for the management of a clinic (2)

- Medical professionals should have a say in clinic policy (1) vs. medical professionals should follow the policy of the management of the clinic (2)
- The interests of the clinic need to be aligned to the interests of medical professionals (1) vs. the interests of the clinic should be determined by decisions of the government (2)
- Medical professionals need to learn to think as a manager (1) vs. managers need to learn to think as a medical professional (2)

What was your first perception, when you heard about the implementation of a new financing system?

What is your personal perception about the changes now?

What do you think about your ability to influence the changes?

What is your personal perception about the implementation process now?

What do you think about your ability to influence the implementation process?

How is the implementation process set up?

How are stakeholders involved in the implementation process?

What are, according to your perception, enablers that supported the implementation of a new financing system?

What are, according to your perception, barriers that impeded the implementation of a new financing system?

What are solutions to overcome barriers and thus to improve the implementation process?

Please indicate your position for the following statements: (1 point means *'no trust into the capacities'* and 6 points mean *'full trust into the capacities'*)

Are you confident that you / medical professionals have the capacity to implement the changes regarding the following factors?

- being able to provide the right diagnosis
- being able to register all the right performances
- being able to meet the required changes regarding treatment regulations / rules
- being able to work transparent but maintain confidentiality

Are you confident that you / managers have the capacity to implement the changes regarding the following factors?

- delivering professionals the right facilities to let them perform their tasks
- being able to transfer the documentation of the professional into the right *'codes'*
- being able to deliver insurance companies the accounting in the right way
- being able to work transparent but maintain confidentiality

(Self-) efficacy in capacities is a very important factor for change management processes.

What are, according to your perception, barriers for willing to use a new financing system?

What has been done in order to improve (self-) efficacy?

Do you have any additional comments?

### **Introduction (Netherlands)**

Hello, my name is Julia Schnetgöke and I am working on a research for the University of Twente, which is also on behalf of a psychiatric clinic in Germany. The psychiatric health care sector in Germany is busy with the implementation of a new financing system, which can be compared to the DRG-system. As a matter of the implementation a lot of changes need to take place within the psychiatric health care sector.

This research focuses on the consequences of the implementation of a new financing system. Therefore there will be interviews within a psychiatric clinic in the Netherlands, that can tell me which factors seemed to be barriers or enablers during the introduction of the DRG-system. The interviews will in particular focus on the different perceptions while implementing the DRG-system.

If you agree, the interviews will be voice recorded and transcribed afterwards. The information that comes forward from the interviews will be anonymous and confidential. In order to make sure that everything is analysed in an optimal way I could send you the transcript of the interviews.

In order to implement the new financing system in its optimal way I am interested in obtaining a realistic picture of the changes and consequences of a new financing system. A realistic picture will help to find solutions to possible problems. Therefore I am looking for your personal, honest opinion on this topic. The interview will take about one hour. Are there any questions until now? Do you agree with this?

### **Interview schedule Management & Professionals (Netherlands)**

Could you introduce yourself briefly and explain what your function is within the change process due to the implementation of the new financing system?

In which phase of the implementation process is this clinic at the moment?

Are you aware of the existence of different perceptions about the organization of health care within this clinic?

Can you elucidate which perceptions you are aware of?

Please indicate your position for the following statements: (one point means 'I totally agree with statement one' and six points mean 'I totally agree with statement two')

- Medical professionals should be led by their professional autonomy in making decisions (1) vs. medical professionals should follow management protocols in making decisions (2)
- Treatment plans should be developed by psychiatrists and patients in order to get the best quality of care for the individual patient (1) vs. treatment plans should be based on quality indicators and follow management guidelines from the government (2)
- As medical professionals are working for the management of a clinic their autonomy is decreasing (1) vs. medical professionals have sufficient autonomy working for the management of a clinic (2)

- Medical professionals should have a say in clinic policy (1) vs. medical professionals should follow the policy of the management of the clinic (2)
- The interests of the clinic need to be aligned to the interests of medical professionals (1) vs. the interests of the clinic are determined by decisions of the government (2)
- Medical professionals need to learn to think as a manager (1) vs. managers need to learn to think as a medical professionals (2)

What was your first perception, when you heard about the implementation of a new financing system?

What is your personal perception about the changes?

What do you think about your ability to influence the changes?

What is your personal perception about the implementation process now?

What do you think about your ability to influence the implementation process?

How is the implementation process set up?

How are stakeholders involved in the implementation process?

What are, according to your perception, enablers that supported the implementation of a new financing system?

What are, according to your perception, barriers that impeded the implementation of a new financing system?

What are solutions to overcome barriers and thus to improve the implementation process?

Please indicate your position for the following statements: (1 point means *'no trust into the capacities'* and 6 points mean *'full trust into the capacities'*)

How confident were you before the implementation that you / medical professionals have the capacity to implement the changes regarding the following factors?

- being able to provide the right diagnosis
- being able to register all the right performances
- being able to meet the required changes regarding treatment regulations / rules
- being able to work transparent but maintain confidentiality

Imagine you are now going back in time, with the information you have now. How confident are you before the implementation that you / medical professionals have the capacity to implement the changes regarding the following factors?

- being able to provide the right diagnosis
- being able to register all the right performances
- being able to meet the required changes regarding treatment regulations / rules
- being able to work transparent but maintain confidentiality

How confident were you before the implementation that you / managers have the capacity to implement the changes regarding the following factors?

- delivering professionals the right facilities to let them perform their tasks
- being able to transfer the documentation of the professional into the right *'codes'*

- being able to deliver insurance companies the accounting in the right way
- being able to work transparent but maintain confidentiality

Imagine you are now going back in time, with the information you have now. How confident are you before the implementation that you / managers have the capacity to implement the changes regarding the following factors?

- Delivering professionals the right facilities to let them perform their tasks
- Being able to transfer the documentation of the professional into the right 'codes'
- Being able to deliver insurance companies the accounting in the right way
- Being able to work transparent but maintain confidentiality

(Self-) efficacy in capacities is a very important factor for change management processes.

What are, according to your perception, barriers for willing to use a new financing system?

What has been done in order to improve (self-) efficacy?

Do you have any additional comments?

## Appendix B

In addition to the interview questions an overview is given on how each of the interview questions is used to answer the study questions. This overview is provided in Table 4. The left column shows the study question and in the right column the interview questions are given.

**Table 4 - Proposition & Interview questions**

Proposition	Interview question
Introduction	<ul style="list-style-type: none"> <li>- Could you introduce yourself briefly and explain what your function is within the change process due to the implementation of the new financing system?</li> <li>- In which phase of the implementation process is this clinic at the moment?</li> </ul>
Health care consists of the two logics of business-like health care and medical professionalism as identified by Reay and Hinings (2009).	<ul style="list-style-type: none"> <li>- Are you aware of the existence of different perceptions about the organization of health care within this clinic?</li> <li>- Can you elucidate which perceptions you are aware of?</li> </ul> <p>Please indicate your position for the following statements: (one point means 'I totally agree with statement one' and six points mean 'I totally agree with statement two')</p> <ol style="list-style-type: none"> <li>1. Medical professionals should be led by their professional autonomy in making decisions vs. medical professionals should follow management protocols in making decisions</li> <li>2. Treatment plans should be developed by psychiatrists and patients in order to get the best quality of care for the individual patient vs. treatment plans should be based on quality indicators and follow management guidelines from the government</li> <li>3. As medical professionals are working for the management of a clinic their autonomy is decreasing vs. medical professionals have sufficient autonomy working for the management of a clinic</li> <li>4. Medical professionals should have a say in clinic policy vs. medical professionals should follow the policy of the management of the clinic</li> <li>5. The interests of the clinic need to be aligned to the interests of medical professionals vs. the interests of the clinic are determined by decisions of the government</li> <li>6. Medical professionals need to learn to think as a manager vs. managers need to learn to think as a medical professionals</li> </ol>
Logics influence the perceived changes and perceived implementation of a new financing system.	<ul style="list-style-type: none"> <li>- What was your first perception, when you heard about the implementation of a new financing system?</li> <li>- What is your personal perception about the changes?</li> </ul>

	<ul style="list-style-type: none"> <li>- What do you think about your ability to influence the changes?</li> <li>- What is your personal perception about the implementation process now?</li> <li>- What do you think about your ability to influence the implementation process?</li> </ul>
<p>The (self-) efficacy of stakeholders differs between countries and logics.</p>	<ul style="list-style-type: none"> <li>- Are you confident that medical professionals have the capacity to implement the changes regarding the following factors? <ul style="list-style-type: none"> <li>o Being able to provide the right diagnosis</li> <li>o Being able to register all the right performances</li> <li>o Being able to meet the required changes regarding treatment regulations/rules</li> <li>o Being able to work transparent but maintain confidentiality</li> </ul> </li> <li>- Are you confident that medical professionals have the capacity to implement the changes regarding the following factors? <ul style="list-style-type: none"> <li>o Being able to provide the right diagnosis</li> <li>o Being able to register the right performances</li> <li>o Being able to meet the treatment regulations/rules</li> <li>o Being able to work transparent but maintain confidentiality</li> </ul> </li> <li>- Are you confident that you have the capacity to implement the changes regarding the following factors? <ul style="list-style-type: none"> <li>o Delivering professionals the right facilities to let them perform their tasks</li> <li>o Being able to transfer the documentation of the professional into the right '<i>codes</i>'</li> <li>o Being able to deliver insurance companies the accounting in the right way</li> <li>o Being able to work transparent but maintain confidentiality</li> </ul> </li> <li>- Are you confident that managers have the capacity to implement the changes regarding the following factors? <ul style="list-style-type: none"> <li>o Delivering professionals the right facilities to let them perform their tasks</li> <li>o Being able to transfer the documentation of the professional into the right '<i>codes</i>'</li> <li>o Being able to deliver insurance companies the accounting in the right way</li> <li>o Being able to work transparent but maintain confidentiality</li> </ul> </li> </ul>



Clinic A can learn from the implementation of a new financing system in the Netherlands and other organizations in Germany and these lessons learned can facilitate the implementation process.

- How is the implementation process set up?
- How are stakeholders involved in the implementation process?
- What are, according to your perception, enablers that supported the implementation of a new financing system?
- What are, according to your perception, barriers that impeded the implementation of a new financing system?
- What are solutions to overcome barriers and thus to improve the implementation process?

(Self-) efficacy in capacities is a very important factor for change management processes.

- What are, according to your perception, barriers for willing to use a new financing system?
- What has been done in order to improve (self-) efficacy?

Complements

- Do you have any additional comments?

## Appendix C

Deductive codes:

- different logics
- perceived implementation process
- perceived changes
- barriers
- enablers
- statements efficacy

## Appendix D

Table 5 provides the answers per statement for the first proposition. The table maintains the answers per respondent on every single statement. Additionally, the score of each of the respondents is given.

**Table 5 - Answers per respondent**

Country	Respondent	State. 1	State. 2	State. 3	State. 4	State. 5	State. 6	Score
		1	2	3	4	5	6	
Netherlands	Respondent 1	5	2	5	1	5	3	21
	Respondent 2	3	2	5	2	3	2	17
	Respondent 3	2	1	2	1	2	2	10
Germany	Respondent 4	3	2	2.5	3.5	5	3.5	19.5
	Respondent 5	2	4	3	2	5	4	20
	Respondent 6	6	5	3	4	6	5	29
	Respondent 7	1	1	3	1	4	1	11
	Respondent 8	3	1	5	1	3.5	2	15.5
	Respondent 9	1	1	1	1	4	3	11
	Respondent 10	4	2	4	4	3	3	20
	Respondent 11	3	3	5	3	3	3	20
	Respondent 12	2	1	2	2	3	4	14
	Respondent 13	X	x	X	x	X	x	0
	Respondent 14	2	3	2	1	5	4	17
	Respondent 15	3	2	1	1	2	3	12
	Respondent 16	3	2	4	1	3	3	16