

# **ARE PHYSIOTHERAPISTS OVERWORKED DUE TO THE CHANGED ENVIRONMENT?**

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*A research about the influence of the changed environment on the workload of  
physiotherapists in terms of regulatory and operational activities.*

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## Preface

My master thesis or 'the icing on the cake of the master' is laying in front of you. With a break of four months, because of an internship abroad, I have finished my master thesis. Something I am proud of. The reason why I have picked a topic about physiotherapy is because I have been treated by several physiotherapists in the past years. Hearing about the actualities in their sector, which were not all positive, made me start to think about it. I am interested in their field and I wanted to combine this interest with my master thesis. Because, of course, I am not a physiotherapist, I needed help from them to get a clear understanding of the real problem. Robbin Delsink, Martin Ophay and Rob Langhout have helped me a lot. Not only to get a clear insight into the problems, but also by pre-testing my questionnaire and spreading my questionnaire to their network of physiotherapists. For this reason, I would like to thank them!

I have worked on my thesis with a lot of pleasure. Not only because I was interested in the topic but also because of the collaboration with my supervisor, Drs. Hans Moerel. Hans has provided me with fruitful feedback and helpful suggestions. He was really fast with his feedback and his responses to my questions. He thereby constantly motivated me to continue and gave me the feeling that I was on the right track. Additionally, I would like to thank my second reader Dr. Jan Achterbergh. He gave me feedback on my research proposal, which helped me when I was halfway. Besides, in the very beginning of my thesis, he took the time to help me out when Hans was ill and I had an urgent question. At this point, he was not even my second reader. This helped me a lot to structure my research.

Of course I have had moments when I did not feel like working on my thesis and wanted it to be finished, but I can look back to an interesting and meaningful period. For this reason, I proudly represent you my master thesis. I hope you enjoy reading it.

## Abstract

It is a turbulent time for physiotherapists. The workload appears to be too high, the power of the insurance companies seems to be too big and there are physiotherapists who consider to stop working as a physiotherapists because they lack confidence for the future. The problem in this sector became also on the agenda of the Dutch politics. Parliamentary questions were asked, mainly about the amount of power insurance companies have. To get a deeper insight in the problem, this research aimed to gain insight into the workload of physiotherapists in order to advise them to adapt to the changed environment.

In the past, two big changes have resulted in three added activities for physiotherapists. before these changes, the physiotherapist had to perform seven activities. This research used the theory of De Sitter, Achterbergh and Vriens and Ashby to classify the activities physiotherapists have to perform in terms of regulatory and operational activities.

Based on a questionnaire, filled out by 314, conclusions could be drafted. The results have shown that the workload of physiotherapists has been increased due to the changed environment. Especially physiotherapists who also worked before the changes, experience a higher level of workload than physiotherapists who have only experienced the 'new situation'. To couple this to the used theory, the workload of physiotherapists has been increased, but the regulatory potential to cope with these changes has not increased. The two biggest problems as a results of the changes are the amount of administrative work and the negotiation with insurance companies. Most of the administrative work has to be performed during overtime hours and the negotiation cannot be called a negotiation. The physiotherapists do not have an equal position, they just can sign the contract and when they do not sigh, they just do not have a contract at all, which means no compensation for the treatments.

Altogether, it has resulted in a high level of perceived workload for especially the added activities and serious amounts of physiotherapists work overtime hours on a daily or weekly basis.

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## 1. Introduction

Physiotherapy in the Netherlands is called a small occupational group, but it contains around 30.000 professional physiotherapists (KNGF, 2014). There are 7980 physiotherapy practices in the Netherlands at the moment (Nivel, 2014) and 22082 physiotherapists are working in these practices (Nivel, 2014). The remaining number is working in hospitals or other institutions. The total number of citizens in the Netherlands who visit a physiotherapist yearly is 3.300.000, and they rate their physiotherapist with an 8,9 on average (Nivel, 2012).

During the past 15-20 years, two big changes have been made in the physiotherapy sector. Before 2004, physiotherapy was part of the basic health insurance in the Netherlands. Until 2005 the government set a fixed fee for a treatment and this fixed fee was set for the whole sector. A physiotherapist explains the old situation: *“In the years 1970-1990 the fee for physiotherapy was based on the treatment modalities the clients were treated with. Physiotherapy could consist of massage, exercise therapy, electrotherapy, warmth or ice applications and some other treatment modalities. All had its own price. In those days, all treatments and applications were summed up and sent to the health insurance company, done by hand. At most physiotherapy companies, the owner of the practice did it himself. If we were really progressive in those days, we had a secretary. All administration was done without computerization.*

*From 1990 till 2005 the government set a fixed fee for a treatment for the whole sector. Apart from that, physiotherapy was specialized in several evidence based modalities; manual therapy, pelvic floor-, pediatric-, psychosomatic, oncology physiotherapy are examples of specializations that get a different fee.”*

One of these changes came into effect on the first of January 2004. The treatments of physiotherapists were no longer part of the basic insurance, with the exception of a few cases. Only when the disease or medical situation is mentioned on the list of chronicle diseases, the treatment will be compensated by the basic health insurance. Also for children (under the age of 18) there are other rules, namely that they are entitled to nine treatments and also nine extra treatments when the treatment did not help. But due to this change all other clients (above the year of 18) need to have additional insurance to get (a part of) their treatments compensated. The pressure on the additional insurance increased as a consequence of this change. The health insurance companies developed multiple insurance policies which someone could choose for additional insurance.

Beside the changes about the compensation of treatments, the second change is about the way of pricing. It had to be changed according to the government of the Netherlands. At the end of 2003 the Schippers et al. motion was passed in the House of Representatives. This motion, presented by Edith Schippers (back then a member of the House of Representatives) was about free rates for physiotherapy. From January 2005 until January 2008, an experiment was conducted, in response to this motion. This experiment was called '*free pricing physiotherapy*', and this experiment entailed that physiotherapists had to negotiate with the insurance companies about the price of a treatment. The idea behind this experiment was that a physiotherapist who provides better quality or service, could agree on a higher price with the insurance company. During this experiment, maximum prices were no longer in effect.

After this experiment, the Dutch Healthcare Authority (NZa) gave an advice to A. Klink (Minister of Health from 22th of February 2007). In this advice the most important findings were that the price of a treatment had become much higher, but stabilized and according to the NZa both insurance companies and physiotherapists were content with the price. Thereby they argued about a national set of performance indicators, because this was useful to measure the quality of different physiotherapists. Based on their findings they recommended A. Klink to change this experiment into a definitive system of free prices from the first of January 2008.

A. Klink came with a reaction based on the recommendations of the NZa. One of the topics he mentioned in his reaction was the market mechanism. According to A. Klink the prices had become in line with the market and insurance companies paid more attention when purchasing on quality, efficiency and transparency of the care. They were also more willing to pay more for these aspects.

In this final judgment he concluded that free pricing in the physiotherapist sector started to show a positive result. It had a positive impulse on quality as well as product innovation and prices became market conform. Insurance companies and physiotherapist did find each other more easily, which resulted in quality for the consumers and also a broader assortment of treatment possibilities. Based on this A. Klink took over the advice of the NZa to change the experiment in a definitive system from the first of January 2008.

As a result of these two changes in the environment of physiotherapeutic practices, the number of activities physiotherapists need to perform has increased. Three main activities were added,

namely working in care networks, negotiate with insurance companies and more administrative work.

### **Networks**

The importance of networks and in particular local care networks has increased. An important reason for the formation of these networks is the withdrawing government (De Man, 2010). The tendency is that health inequalities must be tackled locally and the key lies in a comprehensive and coherent approach in the neighborhood with an active role for the citizens themselves with the help of healthcare professionals. These professionals are the general practitioner, the sport coach of the neighborhood, the nurse practitioner and the physiotherapist. Together they can provide this integral approach and it seems to be effective for the prevention of healthcare problems in neighborhoods (Gezondin.nu, retrieved March 02, 2016). In disadvantaged neighborhoods in particular, the inhabitants have twice as much chronic illnesses, are more often obese and have an unhealthier lifestyle. The need for a network of professionals who work together to reduce the demand for care, increase the quality of care and prevent these problems is increasing in the past years. The physiotherapist plays an important role in this network and the physiotherapist acknowledges the added value of care networks. Because by building local care networks, the physiotherapy practices can carry out collective power, they are able to achieve economies of scale and have better access to resources (Kaluzny et al., 1998). For example they have more collective power when they build a network for Parkinson clients, and together focus on this illness. Although there has been added value, it also results in extra work.

### **Negotiate with insurance companies**

Next to the fact that networks result in less demand for care and a higher quality of care, healthcare institutions are searching for partnerships, partly because via this way they try to resist the power of the insurance companies. Due to the change in pricing, it is now the physiotherapist who has to negotiate with the insurance companies. Several sources have shown that since then, the power of the insurance companies is enormous, as clearly shown by headlines like: *"Physiotherapists suffer under the contracts with health insurance companies"* (Zorgwijzer.nl, October 2013) and: *"Health insurer gets too much power"* (Nu.nl, May 2013). From an interview with a physiotherapist it becomes clear that the negotiation process is unbalanced because although the government states that physiotherapists have to determine a price together with the insurance companies, in fact the insurance companies have a bigger say.

Despite the fact that the negotiation process is unbalanced, the physiotherapists have to “negotiate” and this is a new added activity they have to perform.

### **Administration**

Another additional consequence of the “cooperation” with the insurance companies, is the increased amount of paperwork. *“The client (previously patient) reports are time consuming. Since 2006 we first had to check for strange ‘signs & symptoms’, possibly belonging to serious pathology. After that, we have to do the examination, also with questionnaires. Client reports have to be performed ‘methodically’ which is a format that takes time. Most of the time, physiotherapists take long intakes. The result is that the client can’t be treated the first session and will be dissatisfied.”* (Physiotherapist 1). Most insurance companies have different systems and requirements, which results in extra administrative work. Before they receive the payment, they have to complete all the report requirements per client.

### **Workload**

These three added activities have contributed to an expansion of the range of activities physiotherapists have to perform. The Royal Dutch Society for Physiotherapy (KNGF) states that physiotherapists have to perform seven activities, which will be explained in more detail in the next chapter. Together with the three added activities due to the changed environment, the total range of activities that has to be performed by physiotherapists is added up to ten. This research will use these activities to get an insight in the perceived workload of physiotherapists. The perceived workload will be expressed in terms of the regulatory and operational activities that physiotherapists perform. Workload is defined as the amount of work an employee has to do in a given period of time (Jex and Britt, 2014). Although they know what the amount of work is that they do in a given period of time, there is not a fixed amount of time a physiotherapist should spend on certain activities. For this reason, the perceived workload will be measured. Ashby, De Sitter and Achterbergh and Vriens made a distinction between two kind of activities, regulatory and operational activities. This distinction will be used to cluster the different kind of activities physiotherapists perform. In the next chapter, the different kind of activities will be explained in more detail.

## 1.2 Problem statement

Those three added activities due to the changed environment have resulted in extra work. Many physiotherapists are complaining about the new situation and have to take their work back home to get it all done (Physiotherapist 2). It is so problematic that a research of the KNGF concludes that 30% of the physiotherapists consider to stop working as a physiotherapist because they lack the confidence for their future. The time they can spend on actual treatment of clients has decreased due to these implemented measures.

Therefore, this research will explore to what extent the workload of physiotherapists in terms of activities is affected by the changed environment. Based on empirical findings conclusions will be drafted about the influence of the changed environment on the workload of physiotherapists to use this information to advise them how to adapt to the changed environment. Although the two big changes already were definitively implemented since 2008, it is expected that not all physiotherapists have adapted to a new way of working in which they can combine all the necessary activities. This expectation is on the one hand based on some conversation with physiotherapists. On the other hand, it is expected because recently (October, 7<sup>th</sup> 2016) parliamentary questions were asked to the minister of public health by two member of The Socialist Party (SP). The questions were about a cry of distress for the new 'contract round' which is soon on the agenda for physiotherapists and insurance companies. One of the questions which is asked is *"how do you judge the fact that, apparently, physiotherapists have been presented a contract by insurance companies which means in practice that there is no possibility to negotiate but only 'please sign where indicated'?"*<sup>1</sup>(FysioForum, October 2016). The whole article is included in Appendix 3. According to this statement, the following research objective and research question can be drafted.

## 1.3 Research objective and research question

The objective for this research will be:

*Gain insight into the workload of physiotherapists in terms of their regulatory and operational activities in order to advise them to adapt to the changed environment.*

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<sup>1</sup> "Tekenen bij het kruisje"

The main research question will be:

- *To what extent is the workload of physiotherapists in terms of regulatory and operational activities affected by the changed environment?*

This main question will be split into five sub-questions:

- *What were the changes in the environment?*
- *What has changed in the workload of physiotherapists in terms of regulatory and operational activities due to the changed environment?*
- *To what extent is the workload of the added activities different from the workload of the current activities?*
- *What underlies the perceptions of the workload?*
- *How are the underlying reasons of the perceived workload related to the changed environment?*

#### **1.4 Practical and scientific relevance**

Different sources have reported that physiotherapists are not pleased with the current situation. The number of physiotherapists that do not have faith in the future and therefore consider to stop working as a physiotherapist are alarming. *"This new decade puts the physiotherapy under a lot of pressure. Administration, practice re-organization and joining efficient networks all cost the physiotherapist a lot of energy. As he/she is primarily educated 'to help people', it's understandable that a lot of physiotherapists dislike the new decade. Although they understand the need for change, they don't feel understanding for their work."* (Physiotherapist 1). Also the fact that parliamentary questions are currently asked implies that this problem is high on the agenda.

To be able to change the feeling of dissatisfaction, it is essential to do research about the workload in terms of activities and explore to what extent the workload is affected by the changed environment. After that, it is possible to advise them on how to adapt to the changing environment.

Although this research is characterized as practice-oriented research, the generated knowledge is also valuable for science. In this research, theories and existing literature will be used for this

new situation. The theories about activities have not previously been used on the new situation of the physiotherapists. Therefore, this research can possibly contribute to confirm or amend the theory.

### **1.5 Outline of the research**

This research starts with an introduction followed by a theoretical background. After describing the theoretical background, the methodology that has been used to conduct this research is explained. Subsequently, the results from the survey are presented and based on these results a conclusion is given. Lastly, a discussion will be provided with limitations of the research, implications for further research will be given, just as further practical recommendations.

## 2. Theoretical framework

In this chapter the theoretical concepts are explained. First of all, the concept workload is elaborated on, followed by an explanation of the different types of activities based on the theory of De Sitter, Achterbergh and Vriens and Ashby. After that, the current activities in the physiotherapeutic sector are elaborated on and in the third part these activities are coupled to the theoretical activities. After that the added activities in the physiotherapeutic sector are explained. Lastly, these activities are coupled to theory and based on both current and added activities, a conceptual model is drafted.

### 2.1 Workload

In this research workload is an essential concept. *“Workload is typically defined as the amount of work an employee has to do in a given period of time”* (Jex and Britt, 2014, p. 225). In most cases it is necessary that a distinction is made between perceptions of workload and objective workload (Jex and Britt, 2014). In an occupational setting, workload can be explained by two aspects: Quantitative workload or overload and qualitative workload (Jex and Britt, 2014; Katz and Kahn, 1978). Quantitative workload or overload means that an employee has more work to do than can be accomplished in a comfortable way. Qualitative workload means that someone has work that is too difficult (Katz and Kahn, 1978). By designing a new system, or iteration of an existing system, some problems can occur, for example workload bottlenecks and overload can be identified (Buettner et al. 2015). In this research, the workload will be measured in terms of activities performed by physiotherapists. Due to the changed environment, three activities are added to the activities physiotherapists were performing already. When workload is measured in terms of activities, it will give an insight in the workload in total and of particular activities. Thereby, this research wants to find out what the perceptions of the workload are and identify if this is qualitative workload or quantitative. In the next paragraph, different kinds of activities will be determined and elaborated on.

### 2.2 Transformation process and activities

In organizations, often transformation processes take place. *“A transformation process is a process turning some input into some output”* (Achterbergh and Vriens, 2010, p.12). To realize transformation processes and to regulate them operationally, certain conditions have to be installed. Before the three classes are elaborated, the term regulate needs explanation. Due to

constantly changing circumstances in the environment, there is need for tuning. According to de Sitter (2000), regulation can be defined as coping with change. To regulate, regulatory potential is necessary. This means all the possibilities someone has to his disposal to solve or to deal with tasks (De Sitter, 2000). Regulatory potential are someone's knowledge, skills, attitude, network, status and power (De Sitter, 2000). Workload and regulatory potential are strongly related; if someone has a low level of workload, they will use their regulatory potential for other things. For example they may interfere in the work of other people or are going to try new things. When the workload is too high and the regulatory potential is low, people can have stress, anger and feelings of powerlessness (De Sitter, 2000)

The earlier mentioned conditions are divided into three classes, namely conditions with respect to the division of work (the organization structure), conditions with respect to human resources and conditions pertaining to technological means. The conditions referring to the organization structure refer to defining and allocating tasks and responsibilities. The second condition group, the human resources, are referring to recruiting and developing personnel which are skillful, knowledgeable and motivated. The last conditions refer to the technological means, in more details, this is required for realizing transformation processes and regulating them operationally, e.g. machines, or ICT (Achterbergh and Vriens, 2014). *"Organizations perform transformation processes realizing certain goals (by delivering their output), these processes have to be monitored and intervened in, when necessary they have to be regulated operationally), and, to realize and regulate transformation processes in organization, infrastructural conditions from three classes are required."* (Achterbergh and Vriens, 2010, p. 14). Based on this description on realizing and regulating transformations in organizations, four different activities can be identified. These four different activities are: (1) realizing transformation processes, (2) regulating transformation processes operationally, (3) setting goals for transformation processes (regulate them strategically), and (4) designing infrastructural conditions for transformation processes and their operational regulation (regulating them by design). In more general terms these activities can be separated into two main categories, namely regulatory activities and operational activities. This research focuses on the two main categories of activities and are explained in more detail.

The first main category is 'the regulatory activities' can be divided into three sub activities, which are strategic regulation, regulation by design and operational regulation. The other main

category is the activity which actually perform the activity, in order words, operational activities. According to De Sitter (2000) three types of operational sub-activities can be differentiated: making, preparing, and supporting.

Ashby (1958) uses other terms for the three regulation activities. He refers to control, design and operational regulation. He defines regulation as *“blocking the flow of variety from disturbances to essential variables.”* (Ashby, 1958, p.201). Whereby essential variables are defined as: *“a variable that has to be kept within assigned (physiological) limits if an organism is to survive in its environment”* (Ashby, 1958, p.197).

Also De Sitter makes a distinction for the separate regulation activities. He looks at regulatory capacity with respect to internal and external regulation and routine and non-routine. Internal regulation refers to combine and coordinate processing steps to material and/or information by yourself. (De Sitter, 2000, p.19). External regulation refers to selecting import and export transactions with exchange partners. (De Sitter, 2000, p.19).

In this research, the terms of Achterbergh and Vriens (2014) are used for the regulation activities in this research as well. To define them, a combination of the three authors will be used to give a complete definition of the different regulation activities. The two main categories of activities (operate and regulate) are explained separately in the next paragraph. Table 1 gives an overview of the three authors and their terms for the regulation activities:



**Table 7.2** Types of regulation according to Ashby and de Sitter. In the last column an alternative formulation of the types of regulation (also used by de Sitter) is given

Ashby	De Sitter	Achterbergh and Vriens
Control	External non-routine regulation by changing essential task variables and/or their norms	Strategic regulation
Design	External non-routine regulation: attenuation task-external disturbances by redesigning networks of tasks or change environment otherwise;  Internal non-routine regulation: attenuating task-internal disturbances by redesigning the tasks internal infrastructure;  Internal non-routine regulation by amplification, i.e. increasing routine regulatory potential	Regulation by design
Operational Regulation	Both internal/external routine regulation	Operational regulation

(Table 1: Achterbergh & Vriens, 2010, p. 240)

### 2.3 Regulatory activities

The constantly changing conditions within a company call the need for alignment (De Sitter, 2000, p. 13). Therefore regulatory activities are needed. Regulation is defined as coping with change. *“The regulatory aspect of a transformation concerns dealing with the (virtual and actual) disturbance the operational sub-transformation faces in realizing the desired output of the transformation.* (De Sitter, 1994, p.10). As mentioned before, there are three different regulatory activities distinguishable, namely strategic regulation, regulation by design and operational regulation (Achterbergh and Vriens, 2014). All three activities will be explained separately.

### 2.3.1 Strategic regulation

Strategic regulation is needed when there are changes going on in the environment. The market could ask for another product or develop new requirements for a particular product (De Sitter, 2000). *"For every transformation process goals have to be set so as to ensure their organizational distribution"* (Achterbergh and Vriens, 2014, p. 13). Strategic regulation entails setting goals for a transformation process. It may be that transformations are challenged by the environment and this can lead to a changed way of working together. To think about this changed way of working is on the level of strategic regulation. Adaptations to environmental change are addressed and therefore a redesign of the process is necessary (De Sitter, 2000, p. 103).

### 2.3.2 Regulation by design

As mentioned above, sometimes a changing view on the environment is established. Thinking about this new view is on the level of strategic regulation, but for that a redesign is necessary. *"Nothing is perfect, so there will always be problems that recur regularly and apparently are not properly resolved within the existing processes"* (De Sitter, 2000, p. 102). When these processes are tried to be changed in order to improve them, a change in the 'way of working' is established and thus a change in the design of the process. Given some goal, a designer thinks of disturbances possibly affecting these goals and constructs a table which includes the goals and possible disturbances. This table enables a regulator to make sure that these goals are met when confronted with specific disturbances (Achterbergh and Vriens, 2014). To construct such an effective table, a designer can do two things. First of all, a designer can decrease the variety of disturbance (attenuation). Second, a designer can increase the regulatory potential of a regulator (amplification) (Achterbergh and Vriens, 2014).

### 2.3.3 Operational regulation

Operational regulation refers to the norms that are prevailing in an organization. These norms are used to detect, assess and intervene. *"The processes in the organization are governed according to existing norms which determines who does what and when and how it is governed by what norms"* (De Sitter, 2000, p.101). Realizing transformation processes is often affected by disturbances and many disturbances can negatively affect realizing the goal of the process (Achterbergh and Vriens, 2014). To deal with these disturbances, two activities are essential. The first one is to monitor the transformation processes, and based on the monitoring results, the second activity is to take measures to do something about the disturbances. These activities, needed to deal with disturbances, are examples of operational regulation activities.

## 2.4 Operational activities

*“The operational aspect of a transformation concerns the realization of its desired effect (its desired end state)”* (Achterbergh and Vriens, 2014, p.235). For instance, in the case of an energy company, it has to do with performing all the operational activities that are involved in actually realizing energy for households. Operational activities can be separated into three sub-operational activities: making, preparing and supporting (De Sitter, 2000; Van Hooft, 1996).

### 2.4.1. Making activities

*“Making activities refers to the actual, direct realization of the output of the transformation (or in the case of organizations: actually producing an order)”* (Achterbergh and Vriens, 2014, p. 249). For instance, performing the sequence of activities, needed to make a table. Both making and preparing are directly tied to the transformation’s specific output.

### 2.4.2. Preparing activities

*“Preparing activities refers to providing the necessary conditions for performing the sequence of “make”-activities”* (Achterbergh and Vriens, 2014, p. 249). For example scheduling workers, providing the necessary raw materials, tools and equipment for producing a table, but also purchasing, sales, product design and process design. These preparing activities are directly order-related.

### 2.4.3 Supporting activities

Supporting activities refer to all operational activities that are indirectly tied to realizing the output such as maintenance, human resources planning, services for transportation, quality, staff and premises or technical service (Achterbergh and Vriens, 2014). These activities are not directly order-related and therefore less order specific. For example, maintenance is something that always has to be done and therefore maintenance rules are needed that are independent of any specific order. The same applies to quality management and personnel matters (De Sitter, 2000; Van Hooft, 1996).

## 2.5 Current activities in the physiotherapy sector

In the previous paragraph the activities distinguished in the literature are elaborated on. In this paragraph the activities distinguished in the physiotherapy sector are explained. The Royal Dutch Society for Physiotherapy (KNGF) has conducted a profile for the profession physiotherapy in January 2014. This document provides all the information about the work domain of physiotherapists in the Netherlands. Due to developments in the Dutch society, the

work domain of physiotherapists has changed. For example, a social phenomenon as individualization affects the prevailing views about care. Quality of life and choices that people make are more central than before, according to the KNGF. In the care process, the client and physiotherapists jointly determine the nature and frequency of the selected treatment and therefore the KNGF mentioned that the client has become more central in the demand for care.

This document also provides seven areas of competence. In this research, these areas of competence will be seen as the activities in the physiotherapy sector. These seven activities are explained separately.

1. **Physiotherapeutic acting:** The physiotherapist provides methodical explicit, conscientious and judicious assistance to clients with a problem. He is showing professional behavior according to the work domain. He collects and interprets data, so that he is doing the screening, diagnostic and therapeutic process according the principles of Evidence Based Practice (EBP) within the boundaries of the profession. He provides up-to-date, effective, curative and preventive care ethically.
2. **Communicating:** To guarantee the high quality of help for the clients and a high level of client satisfaction, the physiotherapist has to maintain an effective relationship with the clients and their family and/or other involved parties. The physiotherapist communicates in a clear, transparent, effective and efficient manner while trading physiotherapy. This involves both verbal and nonverbal communication.
3. **Collaboration:** The physiotherapist works, when necessary, together with other involved professionals, insurance companies, societal- and government agencies. He makes full use of available expertise in order to achieve a high quality of care.
4. **Knowledge sharing and scientific practice:** The physiotherapist acts according to the principles of EBP, he contributes to the development of clinical expertise for himself and for others and he contributes to scientific practice.
5. **Societal acting:** The physiotherapist takes the interest of the client in consideration in relation to the interest of others and societal interests. He performs his profession in a socially responsible manner in which factors such as sustainability, ethics, legal framework and the socio-cultural context play an important role.
6. **Organizing:** Next to the fact that a physiotherapist operates efficient and effective, he strives for a good organization. In fact, the physiotherapist acts as a manager of his own work, but

also in relation to the work of other healthcare providers he shall act as a manager. He takes decisions relating to the use or deployment of resources and staff, setting goals, priorities and making a policy. He organizes his own work, in which he maintains a balance between his professional activities and the need to further develop himself and, when necessary, the healthcare organization he works for.

7. Professional acting: The physiotherapist provides customer care of high quality, in a honest, sincere and committed way. He takes responsibility for his actions and takes care of a balance between personal and professional roles. He knows the limits of his competences and is acting according to his competence. When he does not have the competence to help someone, he uses outside experts. He recognizes ethical dilemmas, understands ethical standards and complies with the law.

Based the document of the KNGF the seven activities are used in this research as the current activities physiotherapists have to perform.

## 2.6 Current activities in physiotherapy sector coupled to activities distinguished in theory

In paragraph 2.2 and 2.3 all the activities distinguished by Ashby, De Sitter and Achterbergh and Vriens are explained. They distinguish two main categories of activities, namely regulatory and operational activities. Both main categories are divided into sub activities, namely strategic regulation, regulation by design and operational regulation and the operational activities are divided into prepare, make and support activities. In paragraph 2.5 the activities distinguished in the physiotherapeutic sector are explained. There are seven current activities physiotherapist perform. These seven activities are physiotherapeutic acting, communicating, collaboration, knowledge sharing and scientific practice, societal acting, organizing and professional acting. In this paragraph these activities, are coupled to the activities that are distinguished in theory.

### Physiotherapeutic acting

Physiotherapeutic acting is coupled to the operational activities. *"The operational aspect of a transformation concerns the realization of its desired effect (its desired end state)"* (Achterbergh and Vriens, 2014, p.235). Physiotherapeutic acting is actually treating the clients with a problem. Physiotherapeutic acting includes three different activities. First of all it includes the screening process, which entails the screening of a client through a focused anamnesis, optionally with a

physical examination, in order to decide if the problem belongs to the work domain of a physiotherapist. This screening process is an example of a prepare activity. After the screening process, the diagnostic process needs to be done. The physiotherapist identifies and analyzes the movement problem of the client via the methodical way and relates this to the request for help of the client. This is also an example of a prepare activity. The last activity is the therapeutic process, which entails the actual treatment. In consultation with the client the treatment plan is carried out. This activity also entails the evaluation and the closure with the client after the problems are treated and cured. This whole therapeutic process is an example of a make activity.

### **Communicating**

The second activity that a physiotherapist performs is communicating with the client, their family and other involved parties. In the description of the activity communication is stated that communicating is necessary to guarantee the high quality of the treatment and the high customer satisfaction. Although support activities refer to all the operational activities that are indirectly tied to realizing the output, such as quality (Achterbergh and Vriens, 2014), they are characterized by the fact that they are not order specific. In this case the communication the document is referring to, is order specific. Therefore, communicating is an example of a make activity, because communicating is necessary to realize the desired effect (satisfied customer and high quality) (Achterbergh and Vriens, 2014).

### **Collaboration**

Collaboration means working together with other professionals and thereby make full use of the available expertise to deliver the highest quality. This collaboration is an example of a strategic regulatory activity. *“For every transformation processes goals have to be set so as to ensure their organizational distribution”* (Achterbergh and Vriens, 2014, p. 13). To ensure the organization distribution of a physiotherapist, and thus delivering the highest quality, collaboration is necessary.

### **Knowledge sharing and scientific practice**

This activity is an example of an operational regulatory activity because physiotherapists have to act according to the norms of EBP, and they need to contribute to scientific practice. Operational regulation refers to the norms that are prevailing in an organization (De Sitter, 2000).

### **Societal acting**

This activity is also an example of an operational regulatory activity. The physiotherapists act in a way that is societal responsible way, whereby factors as sustainability, ethics, legal framework and the socio-cultural context play an important role. These factors can be seen as norms and therefore is an operational regulation activity (De Sitter, 2000).

### **Organizing**

This activity is an example of a regulation by design activity, because the physiotherapist strives for a good organization and organizes his own work. This entails the 'way of working' and therefore it can be classified as a regulation by design activity (De Sitter, 2000).

### **Professional acting**

This activity is, just like societal acting, an example of an operational regulatory activity. The physiotherapist delivers customer care of high quality in an honest, sincere and committed way. These standards of how high quality is achieved, can be seen as norms. Therefore it can be classified as an operational regulatory activity, because these activities refer to norms that are prevailing in an organization (De Sitter, 2000).

## **2.7 Added activities in the physiotherapeutic sector**

In the previous paragraphs it became clear which activities are distinguished by the KNGF and how these activities are coupled to the theory. However, based on the implemented measures described in the introduction chapter and the changed environment due to these measures, it became clear that these seven activities are not the only activities that have to be performed by physiotherapists. Based on dialogues with physiotherapists and other sources, three new activities needed to be added. Working together in networks has become more important, negotiate with insurance companies has been added and due to the requirements of the insurance companies, the administrative work has increased. In the next paragraph the three added activities are explained separately.

### **2.7.1 Care networks**

This paragraph provides an explanation of networks in general and a more specific explanation of care networks. It also becomes clear why networks and care networks are useful.

*"The term "network" is used to describe the observed pattern of an organization. But just as often it is used normatively: to advocate what organizations must become if they are to be competitive in today's business environment"* (Nohria and Eccles, 1992, p. 1). Due to more competitive markets, established firms are trying to restructure their internal organizations along the line of networks. They are also trying to redefine their relationships with vendors, customers, and even competitors and are seeking for more collaborative relations that will bind them together into a network (Nohria and Eccles, 1992). A network can be thought of as an inimitable and non-substitutable asset by facilitating access to unique resources and capabilities (Gulati, 1999). From a network perspective, the environment consists of a field of relationships that bind organizations together. Also called an "inter-organizational field" (DiMaggio and Powell, 1983, p. 148). These organizations include *"key suppliers, resource and product customers, regulatory agencies, and other organizations that produce similar services or products."*

The study of relations between organizations has been a major concern of organization theorists for at least the past twenty-five years (Milward and Provan, 1998). *Much of this recent interest has been generated by an emerging recognition by academics that businesses, as well as organizations in the not-for-profit and public sectors, are increasingly turning to various forms of co-operative alliances as a way of enhancing competitiveness and effectiveness in ways that would not be possible through the traditional governance mechanisms of market or hierarchy* (Milward and Provan, 1998, p. 388).

Now that it is clear what a network is and why they are important, a more specific view on networks for the subject of this research is needed. What are care networks?

Care networks, or care chains, consist of an institutionalized co-operation of regional or local institutions and professionals, intended to facilitating cooperation at the operational level with the aim of creating a coherent, integrated offering for (specific) client categories (RVZ, 1998). The rationale behind the strategy is that defragmentation among healthcare providers hampers an integrated, efficient and controllable care, while integral cooperation promoted this (Mur-Veeman e.a., 2001; Hardy e.a., 1999). In these networks, facilities and activities of professionals are aligned and this results in that clients always and everywhere receive the care that meets their complete needs (Fabbricotti, 2007). In a care network, all elements in the process are coordinated and for the client the transitions between institutes are well regulated (Hoogeboom et al., 2007). A condition for a successful care network is that all the participating disciplines are

working according to the principles of Evidence Based Practice. Care chains are a way to promote cooperation and coordination between care providers (Calsbeek and Rosendal, 2007).

### **Activities in care networks**

It is already explained what care networks are, but which activities have to be performed in such networks? In recent years, a few studies have focused on care networks. For example, Vahedi Nikbakht-Van de Sande et al. (2005) did research about the function of care networks in Palliative care (A Dutch view). *The most important achievements obtained by the palliative care networks were: increase in personal contact between colleagues in a region, improved engagement and collaboration between participating organizations, enhanced insight in the healthcare provisions, joined initiatives for the development of new care products, and organizations of client-tailored care. Important success factors for the networks were deemed: fruitful mutual contacts, regular funding and the collective development of care products*" (Vahedi Nikbakht-Van de Sande et al. 2005, p. 808). Also another research that was focused on a model for care networks conducted by Minkman (2012) stated that consistency, no miscommunication, clear coordination and the use of a smooth operating process in combination with 'customized care' are essential elements of care networks. In other words, coherence, cooperation and coordination are certainly of interest.

Also Milward and Provan (1998) did research on care networks and especially focused on how to measure care networks. To be able to measure these networks, they distinguish five service links in a network for adults with serious mental illness. The five service links are seen as activities. The activities they mention are 'referrals received', 'referrals sent', 'case co-ordination', 'joint programs' and 'service contracts'. The prevailing view among many service professionals, policy makers, and researchers is that by integrating services through a network of provider agencies linked through referrals, case management, and joint programs, clients will gain the benefits of reduced fragmentation and greater coordination of services, leading to a more effective system (Warren, Rose, and Bergunder, 1974; Rogers and Whetten, 1982).

If you compare these activities with the research of Vahedi Nikbakht-Van de Sande et al., (2005) some similarities are noticeable. Where Vahedi Nikbakht-Van de Sande et al. (2005) talk about 'collective development of new care products', Milward and Provan (1998) call this 'joint programs'. Also 'personal contact with colleagues in region' matches with the activities 'referrals

received and sent'. In this research, the five activities distinguished by Milward and Provan (1998) are used as the activities needed in a care network. In chapter three they are operationalized.

### **2.7.2 Negotiate with insurance companies**

The second added activity in the physiotherapeutic sector is *negotiate with insurance companies* and is explained in this paragraph.

Due to the withdrawing government, physiotherapists have to negotiate with insurance companies about the prices of the treatments. The healthcare has to be regulated by the market mechanism according to the Dutch Government. Normally, a price tends to play a crucial role in balancing supply and demand in a market. But in the healthcare market, money should not play a significant role in the allocation of necessary care (Schut, 2009). The result is that in addition to the suppliers and demanders of care, there is a need for a third party. In the case of the Dutch healthcare, the insurance companies are the third party (Schut, 2009). The interpretation of the role of the third party is of crucial influence in the way how healthcare markets are functioning. The third party, the insurance companies are the ones who negotiate about the prices with the physiotherapists.

### **2.7.3 Administration**

Next to the fact that negotiating is an added activity as a consequence of the implemented measures, it also becomes clear that this has resulted in more paperwork for the physiotherapists. They have to report to the insurance companies how they have treated their clients and this brings much more work than before. Each treatment needs to be reported according to the requirements of the insurance companies, before they receive the payment. Therefore, the physiotherapists are obligated to meet their standards in order to get paid and thus they are doing the added amount of administrative work.

## **2.8 Added activities in physiotherapy sector coupled to activities distinguished in theory**

The three added activities were explained separately in the previous paragraph. In this paragraph the added activities are coupled to activities distinguished in theory.

### **Care networks**

The activity 'care networks' consists of five sub-activities but the general activity of working in a network can be coupled to a 'supporting' activity, because this kind of activity refers to all operational activities that are indirectly tied to realizing the output (Achterbergh and Vriens, 2014). To be part of a care network, the realization of the output will be reached in a more efficient way since care networks intend to facilitate cooperation at the operation level with the aim of creating a coherent, integrated offering for (specific) client categories. This is not directly order-related but it is indirectly tied to realizing the output for these kind of clients.

### **Negotiate with insurance companies**

Due to the implemented measures, physiotherapists have to negotiate with insurance companies about the prices for the treatments they perform. This activity can be classified as a 'supporting' activity, because supporting activities refer to all operational activities that are indirectly tied to realizing the output (Achterbergh and Vriens, 2014). These activities are not directly order-related. The negotiation process with insurance companies is not directly order-related and is an operational activity that has to be performed to support the 'making activity', which is the actual treatment of the clients and to make sure that the physiotherapists get a compensation for the treatment.

### **Administration**

Physiotherapists always had to report about their treatments, but due to the increased power of the insurance companies, the amount of paperwork increased enormously. This activity can be classified as a 'making activity,' because the required administration that the insurance companies ask for is necessary to actually complete the treatment and receive the payment for the treatment. "Making activities refers to the actual, direct realization of the output of the transformation (or in the case of organizations: actually producing an order)" (Achterbergh and Vriens, 2014, p. 249). Thereby, doing administrative work can also be classified as an 'operational regulatory activity', because the requirements set by insurance companies for the administration before receiving money can be interpreted as norms. "The processes in the organizations are governed according to existing norms determine who does what and when and how it is governed by what norms" (De Sitter, 2000, p.101).

In the past paragraphs all ten activities are explained and coupled to theory. As a result, all the activities are classified according to the distinction between operational and regulatory activities. Collaboration is classified as a strategic regulation activity, organizing as a regulation by design activity and societal acting, professional acting and knowledge sharing and scientific practice are classified as an operation regulation activity. The other activities are classified as operation activities, in which physiotherapeutic acting, communicating and doing administrative work are classified as making activities. Negotiate with insurance companies and working in care networks are seen as supporting activities. The only activity that has not been coupled with an activity of physiotherapists is the preparing activity. A preparing activity refers to *“providing the necessary conditions for performing the sequence of “make”-activities”* (Achterbergh and Vriens, 2014, p. 249). This can be scheduling workers, providing the necessary material a physiotherapist needs, tools and equipment but also sales and purchasing. These kind of activities are directly order-related but not performed by physiotherapists themselves. For this reason, none of the activities performed by physiotherapists is classified as a preparing activity.

In the next paragraph, the conceptual model will be shown.

## 2.9 Conceptual model

Based on the previous explained theoretical and practical activities performed by physiotherapists and the two big changes explained in the introduction, the following conceptual model has been prepared:

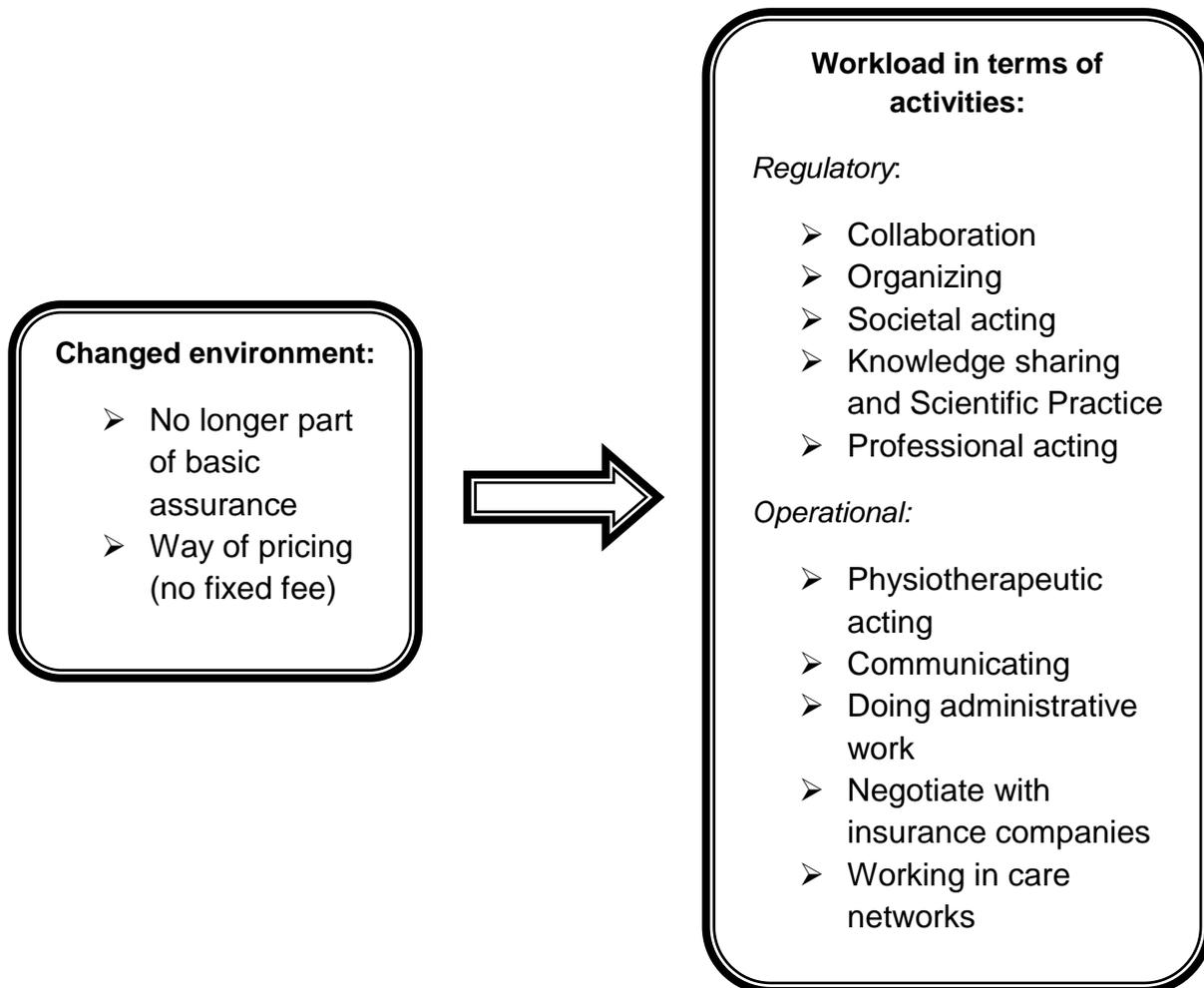


Figure 1: Conceptual model

The left box presents the independent variables of this research. The government has implemented two big changes which change the environment of physiotherapists. Physiotherapy is no longer part of the basic insurance and the way of pricing has been changed. In the past, the government set a fixed price of a treatment, currently the physiotherapist has to negotiate with insurance companies to determine the price for a treatment. These changed environment has resulted in three extra activities, namely working in care networks, negotiate

with insurance companies and doing (more) administrative work. Together with the seven activities identified by the KNGF, the total range of activities is added up to ten, which are shown in the right box, the dependent variables. The arrow in the middle means that this research intends to investigate what the influence is of the changed environment on the workload of physiotherapists in terms of regulatory and operational activities. The assumption is that the total workload of physiotherapists has increased due to added activities as a result of this changed environment. It is thereby assumed that the added activities will be perceived as more aggravating because physiotherapists may believe that these activities are not their responsibility since they were educated to treat clients instead of spending a lot of extra time on administration, building/ working in care networks and negotiate with insurance companies In the next chapter, the methodology that is used to conduct this research is elaborated on.

## 3. Methodology

### 3.1 Introduction

This chapter explains the methodological choices that contribute to an appropriate research design. First, the research strategy is discussed. After that, the research approach is explained followed by the choices that were made according to the sample of the survey and the operationalization of the variables. Next, the validity and reliability is discussed and the chapter ends with the method of analysis and a paragraph about research ethics is included.

### 3.2 Research strategy

The most common research strategies are a case study, a survey and an experiment. In this research, a survey is used for the collection of data. The purpose of a survey is to produce statistics, that are, quantitative or numerical descriptions about some aspects of the study population. Surveys offer an opportunity to collect large quantities of data or evidence in a quick and convenient manner (Oppenheim, 1966). In more detail, a mail questionnaire is used as data collection method. The advantages of such a questionnaire are that it is relatively easy to set up, to distribute among the participants and after that, it can easily be collected and analyzed. Before the questionnaire was sent to the participants, a pre-test of the questionnaire took place. According to Babbie (2010), pre-testing a questionnaire is important because the possibility for errors is always there, regardless of how careful the researcher has designed a questionnaire. Three physiotherapists were asked to pre-test the questionnaire. They provided feedback which was used to improve the questionnaire.

### 3.3 Research techniques

This research takes a positivist philosophical stance, whereby the researcher is seen as an objective analyst and interpreter of a tangible social reality (Remenyi et al., 1998). This philosophy emphasizes the importance of an objective scientific method. "*Positivism emphasizes quantifiable observations that lend themselves to statistical analysis*" (Remenyi et al., 1998, p.33). This research intends to use quantifiable observations to get a statistical analysis about the influence of the changed environment on the workload of physiotherapists in terms of regulatory and operational activities. Thereby, when a research problem calls for the identification of factors that influence an outcome, a quantitative approach is best (Creswell, 2014).

In quantitative studies, the deductive approach is typically used (Creswell, 2014; Anderson, 2009; Vennix, 2011). This research has taken a deductive approach as well. The formulated conceptual model is based on existing theories and knowledge about activities in the physiotherapeutic sector. The theory is operationalized in a way that the collected data could contribute to further theorizing on the subject.

In this research, also qualitative aspects are used. Three physiotherapists were preliminarily interviewed. The purpose of these interviews was to get a complete understanding about the exact problem. The findings of these interviews were used to design the study.

### 3.4 Sample

The main way of collecting information was by asking people questions. Their answers constituted the data to be analyzed. Generally, information was collected about only a fraction of the population rather than from every member of the population. This is a sample (Fowler, 2014). The population of this research consisted of physiotherapists in the Netherlands, who currently practice the profession in a physiotherapy practice. Because it was not possible to ask all active physiotherapists in the Netherlands, a subset of the whole population has been taken. The purpose of drawing a sample is to come to statements about the total population via generalization from the sample (Vennix, 2011). This research made use of snowball sampling. By using snowball sampling, it is not possible to ensure that the population will be representative. For this reason, several control questions were asked to check if the sample was representative for the whole population. Based on the collected data, it can be concluded that the sample was representative because 43,9% of the physiotherapist is man, and 56,1% is female. Thereby, all the provinces are represented in the survey, the only province who had a lot more delegates, is Gelderland. This makes sense because the researcher is living in Gelderland, just as the biggest group of her network. Also the ages of the physiotherapists have is spread, 26,28% is between 20 and 29 year, 24,36% is between 29 and 37, 16,99% is between 38 and 46 year, 18,59% is between the 47 and 55 year and 13,78% is between the 56 and 65 year. The group that have worked before the changes (before 2004) is 47,5% and the group who worked less than 12 years (since 2004) is 52,50%.

In the Netherlands 22.082 physiotherapist are working in physiotherapist practices. These 22.082 physiotherapists belong to the population of this research. Because all physiotherapists have a network of other physiotherapists besides their direct colleagues, snowball sampling was

helpful in this research. Snowball sampling is useful when the population is hard to reach (Bergeron & Senn, 1998). Because the survey was sent by e-mail, it is quite simple for the physiotherapists to forward the e-mail to their address book with other physiotherapists. To determine the sample size, the table of Korzilius (2000) was used in this research. The total population of physiotherapists in the Netherlands, working in a physiotherapeutic practice, consists of 22.082 people. With a confidence interval of 95% and a margin of error of 5% a sample of 377 physiotherapists was needed. In a period of four weeks, 314 respondents had filled out the questionnaire, which means that 83,30% of the predetermined sample has been reached.

During these four weeks, a pro-active strategy of contacted physiotherapists practices has been used. In total 319 practices has been contacted via e-mail, but only some of them answered the e-mail. It is not possible to give numbers of people who forwarded the e-mail, because the e-mail did not include a question that if someone forwarded the e-mail, to let the researcher know. This was an informed decision to make the effort that was asked for as low as possible. This was also in line with the reasoning of not sending a reminder. Based on some reactions, it became clear during the four weeks that physiotherapists are overloaded with these kind of e-mails and therefore a reminder would probably make the physiotherapists irritated instead of productive. Some of them were already irritated by receiving my email. The people who reacted with the message that they forwarded the e-mail to their network were thanked for their help.

Next to contacting the practices via their information e-mail, also the physiotherapists network of friends, colleagues and family of the researcher were used to send direct e-mails to physiotherapists. Also two physiotherapists who are friends of the researcher helped her by posting a message about the survey on the LinkedIn and Facebook platform only accessible for physiotherapists. FysioActueel designed a post of the survey on their website, after they were contacted by the researcher, even as different platforms where everyone with an account can upload messages were used to share the survey link. The post of FysioActueel is can be found in appendix 5. The post of the survey was also included in a mailing to 1537 physiotherapists of the educational institute for physiotherapists Nexus. This mailing is included in appendix 4. Lastly, an employee of the KNGF has sent the survey directly to 197 physiotherapists. In the appendix, screenshots can be found of the different sharing platforms. In advance, a response rate of 20% was set, and therefore approximately 1900 physiotherapists were needed to get 377 filled out

surveys in return. Afterwards it is hard to say what the actual response rate was, because there is no overview of the exact amount of physiotherapists who received the e-mail about the survey.

### 3.5 Operationalization

To make the transition from statements to observation, the variables need to be operationalized (Vennix, 2011). This is done in a visible way and written down. The tree structure that is shown below is according to the operationalization of Vennix (2011).

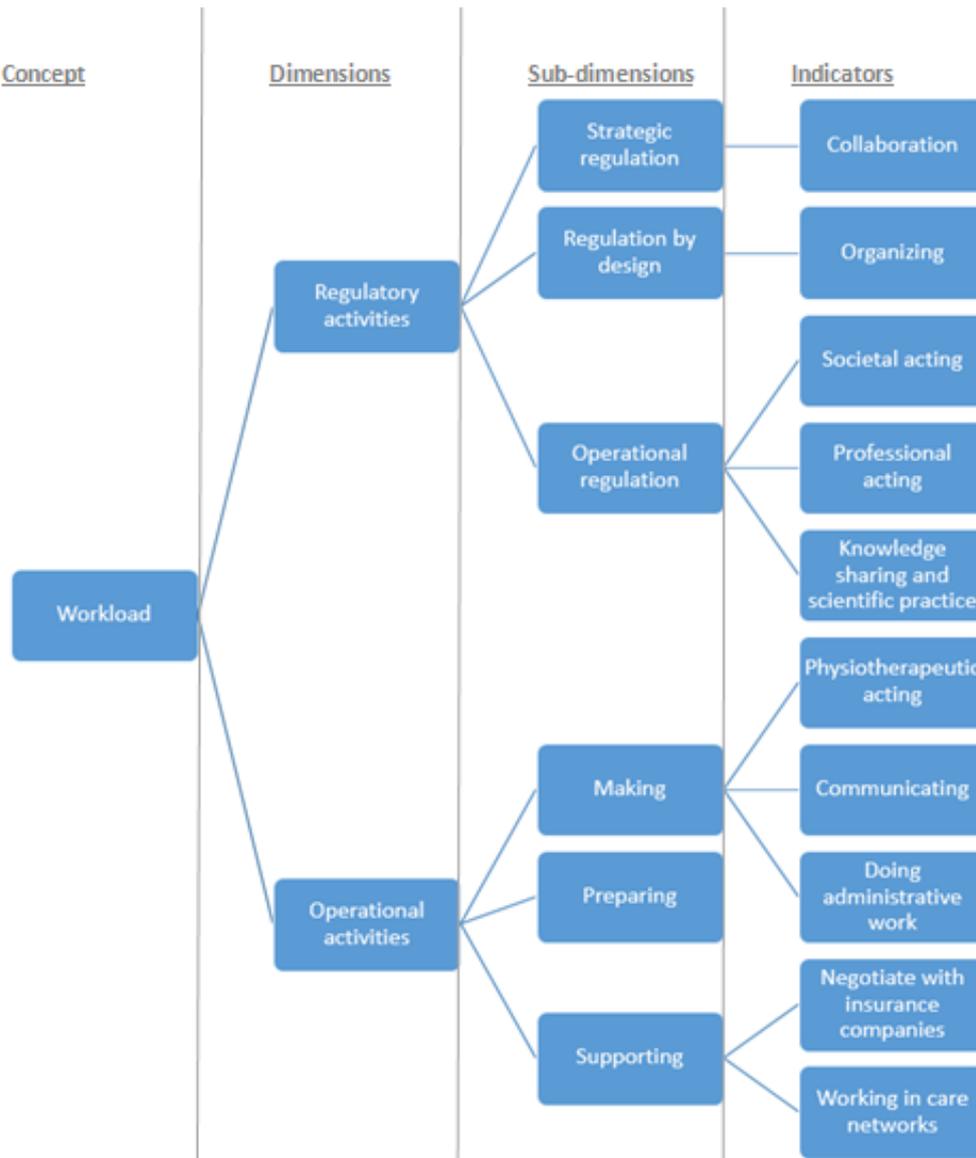


Figure 2: Operationalization

To find out the influence of the workload in terms of regulatory and operational activities, it was necessary to identify for each of the activities whether the physiotherapists spends time on a certain activity and if so how much time. Thereby it was important to measure if they experience a certain activity as aggravating and if they do, why they experience it that way. Via this, the workload of a certain activity can be analyzed. Also, via the questionnaire the researcher wants to find out if they work overtime and which activities they perform while working overtime. So, for each activity the first question was if they spend time on it. If they spend time on it, the other questions followed for each activity they spend time on separately.

### *Care networks*

To make sure that physiotherapists have the same definition of a care network, some additional questions on care networks were asked. In this research, care networks, or care chains, are an institutionalized co-operation of regional or local institutions and professionals, aimed at facilitating cooperation at the operational level with the aim of creating a coherent, integrated offering for (specific) client categories (RVZ, 1998). Milward and Provan (1998) conducted a research named '*measuring network structure*', whereby they identified five activities that occur in a network for adults with serious mental illnesses. Because their research about measuring networks is about networks of health providers, the activities they use to measure care networks were used to operationalize care networks in this research. In this research, the care networks are not restricted to adults with serious mental illnesses but are care networks for offering care to (specific) client categories. The five activities and their definitions applied to this research are:

1. *Referrals received*: Does your practice receive clients with some regularity from the health providers you are collaborating with?
2. *Referrals sent*: Does your practice send clients with some regularity to the health providers you are collaborating with?
3. *Case co-ordination*: Does your practice co-ordinate and share cases on an ongoing basis with healthcare providers you are collaborating with?
4. *Joint programs*: Does your practice have any programs with the health providers you are collaborating with, in which clients are served jointly through a formal collaborative effort with these health providers?

5. *Service contracts*: Does your practice send funds to or receive funds from the health providers you are collaborating with for providing services on a contractual basis to clients?

These questions were asked, just as the question if physiotherapists spend time on care networks.

#### *Treatment of clients*

According to the KNGF the profession of physiotherapists consists of seven activities they have to perform. The seven activities were reduced to six activities because physiotherapeutic acting and communication cannot be separated since during the treatment of a client, the acting takes place at the same time as the communication. To be able to operationalize these two activities and gain insight in the amount of time physiotherapists spend on these two activities related to treating clients, the two activities were pooled to one activity: treatment of clients. These activities were both classified as a making activities, which made it possible to cluster them.

This activity was operationalized as the amount of time they spend on the treatment of clients. This involves physiotherapeutic acting (screening, diagnosing, therapeutic process), and communication with the client, family and other involved parties.

The five remaining activities are collaboration, knowledge sharing and scientific practice, societal acting, professional acting and organizing. Collaboration, knowledge sharing and scientific practice need no further explanation and were operationalized according to the general questions explained in the beginning of this paragraph.

#### *Societal and professional acting*

For societal acting and professional acting it was less straightforward. These two activities are not that concrete to ask whether they spend time on it. Societal acting and professional acting should be used during the treatment of clients, but it is not a individual action. For this reason, physiotherapists were not asked if they spend time on it, but if they keep these 'norms' in mind while treating a client. The rest of the questions, about if they experience it as aggravating and working overtime, were the same for these two activities.

### 3.6 Questionnaire

All the activities were operationalized, some with additional explanation. Based on these operationalization, a questionnaire for the physiotherapists were drafted, which is added in the Appendix. All the questions were translated to Dutch, because the physiotherapists are all Dutch physiotherapists, operating in a Dutch society. Thereby, to make sure that the physiotherapists understand what is meant by every activity, the survey started with a definition of all the activities. Next to that, the physiotherapists were able during the whole survey to open the file with the definitions of the activities. To make sure that all topics were covered, the physiotherapists were asked at the end of the survey if they have additional information which they think is applicable for this research. Thereby, the physiotherapists were asked if they like to receive the results of the research after the research is finished.

### 3.7 Validity and reliability

*"One way to try to ensure that measurement error is kept to a minimum is to determine properties of the measure that give us confidence that it is doing its job properly. The first property is validity"* (Field, 2013, p. 12). The validity of a scale addresses the question whether it measures what it was designed to measure (Vennix, 2011; Field, 2013). Because the questionnaire that is used in this research has not been used before, it is quite hard to make sure that the questionnaire is valid. Although, there are some things a researcher can do to enlarge the validity. Validity can be separated into two forms of validity, namely internal and external validity. Internal validity means measure what you want to measure (Vennix, 2011). External validity means that the results are generally applicable (Vennix, 2011). To make the internal validity as high as possible, the survey has been pre-tested to make sure that the physiotherapists understood what they were asked. Thereby, terminology which is used by physiotherapists was used in the survey and they were able to open a definition sheet during the whole survey. As explained earlier in this chapter, 83,30% of the total sample of 377 respondents was reached. This means that the results are not totally general applicable. For this reasons the conclusions are somewhat cautiously formulated. Another form of validity is content validity (Creswell, 2014; Vennix, 2011). To make the content validity as high as possible, the operationalization of each variable needs to be very accurate (Vennix, 2011). In the previous paragraph, all the variables are operationalized to a certain extent. There are two ways to improve the operationalization, namely by using existing literature about existing operationalization of variables and by presenting the operationalization to some potential participants. The first aspect has been done by the variables 'care networks'.

Another way to make the content validity as high as possible is by asking potential participants to take a look at the operationalization. Therefore, three physiotherapists were asked to look at the operationalization before the questionnaire was done. As mentioned before, also a pre-test has been taken by three other physiotherapists to improve the content validity (Babbie, 2010).

The second property is reliability, which means whether an instrument can be interpreted consistently across different situations (Field, 2013). To measure the reliability of a questionnaire, another researcher needs to repeat the survey by the same participants and check whether the given answers are the same over time (Vennix, 2011; Field 2013, Swanborn, 1994). In this research, all the choices and steps that have been taken, are described in detail.

A way to assess reliability is by making use of triangulation (Vennix, 2011). In this research, a few sources of data were used. Some interviews were performed, a questionnaire was conducted and documents of the KNGF, Dutch Government, Nivel and NZa were used.

### 3.8 Method of analysis

This research aims to find out to what extent the workload of physiotherapists in terms of regulatory and operational activities is affected by the changed environment. The first statistical tests that were conducted were frequency tables, to get an inside into the performed activities. After that, a repeated-measures ANOVA was performed. A repeated-measures ANOVA is used when the same participants participate in all conditions of an experiment to overcome to problem of correlated scores (Field, 2013). The results of the ANOVA asked for a post-hoc analysis, which was done by independent sample t-tests. According to Field (2013, p.325) an independent samples t-test "*is used when there are two experimental conditions and different participants were assigned to each condition*". All these statistical test took the assumptions of the tests into account. IBM SPSS Statistics was used to run the analyses.

### 3.9 Research ethics

*"There is a growing recognition among scientists, government officials, research institutions, and the public that ethical conduct is essential to scientific research"* (Shamoo and Resnik, 2015, p. 1). Hence, this research dwells upon research ethics. Although a researcher strives for full objectivity, it needs to be acknowledged that full objectivity is never be possible (Kant, 1997). Although it is not possible to reach full objectivity, this research will strive for objectivity in experimental design, data analysis, data interpretation and other aspects where objectivity is

expected or required (Shamoo and Resnik, 2015). One of the important virtues, suggested by Holt (2012), is sensitivity in handling participants relationships/data. In this research, data was collected, from many individual physiotherapists. All the physiotherapists filled out the questionnaire anonymously and their answers were only used to draw conclusions for this research. The data is not shared with other parties. Thereby, Holt (2012) states that participants should be informed about the purpose of the study, their expected involvement and duration. Before the participants filled out the questionnaire, a page with information should be read with the elements mentioned by Holt (2012). Another important aspect of research ethics, is honesty. A person who acts honestly repeatedly develops the virtue of honesty (Shamoo and Resnik, 2015, p. 14). The information about the research that was sent to the participants conducted of honest information. The estimated time of answering the questionnaire was given and all the promises that have been made about anonymity and not sharing the data with other parties were respected. The last principle of ethics that is important in this research, is carefulness. This means that a researcher needs to avoid careless errors and negligence (Shamoo and Resnik, 2015). In this research, the work was carefully and critically examined and records were kept about correspondence with involved agencies because the contact was mainly by e-mail. When the contact is face-to-face or via the telephone, notes will be taken and shared with the particular contact person.

## 4. Results

In this chapter, the results of the quantitative research are shown. To answer the main question of the research, the sub questions need to be answered. The main question of the research is: *‘To what extent is the workload of physiotherapists in terms of regulatory and operational activities affected by the changed environment?’* But firstly the reliability of the survey is discussed. Afterwards, in five steps, all the sub questions are answered.

### 4.1 Reliability of the survey

To be able to assess the reliability of a survey, the missing data had to be deleted. The total amount of respondents who started with the survey was 355. When a respondent filled out more than 13% of the survey, the answers were useful because at this point they had filled out the questions about which activities they spend time on. The respondents with 0 – 13% were deleted, which resulted in a total amount of 314 respondents. 207 of the total amount filled out 100% of the questionnaire. For each sub question the total amount of respondents is given.

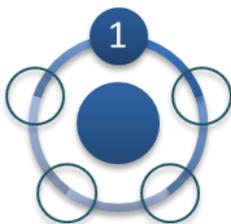
For each respondent the kind of questions they had to answer was depending on the answer they gave on the question about which activities they spend time on. When they answered ‘no time’, the follow-up questions for this particular activity were not given. To use, for example, the Cronbach’s alpha to measure the reliability of a survey, a scale with several items can be analyzed. In this survey, there were no scales with several items to measure a particular concept. For this reason, the Cronbach’s alpha cannot be used to measure the reliability. Because this survey was used for the first time, it is essential to describe in detail how the process went and which steps were taken. This is done in the upcoming paragraphs, where the sub questions are answered individually.

### 4.2 Analyses of the results

This research aims to answer the question: *‘To what extent is the workload of physiotherapists in terms of regulatory and operational activities affected by the environment?’*. To answer this question, five sub questions were drafted, which are all shown in the figure below. In the coming paragraphs, all the sub questions are answered, step by step. Eventually this is the basis for answering the main question.



Figure 2: Visual outline of the results

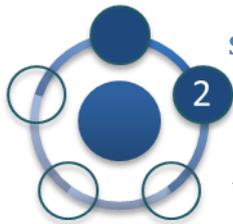


**Step 1: Changed environment**

As explained in the introduction of the research, the environment of physiotherapists has been subject to two big changes. The first was that the physiotherapy is no longer part of the basic health insurance in the Netherlands since 2004. The years before 2004, the government had set a fixed fee for a treatment and this fixed fee was set for the whole sector. This does belong to the past now.

The second change in the environment of physiotherapy is about the way of pricing. The Dutch government was not pleased with the system. It had to be more effective, result-oriented and innovative. Thereby, it should be more client-oriented, which can be reached, according to them, by giving the initiative to the market. To accomplish this, it had to be changed to a free rates system for physiotherapy. After a conducted experiment between 2005 and 2008, this change became a definite new system. The reasoning behind this idea was that a physiotherapist, who

provides better quality of service, could agree on a higher price with the insurance company. According to A. Klink, the experiment had shown positive results: positive impulses on quality as well as product innovation and prices became market conform. In his belief, insurance companies and physiotherapists did find each other more easily, which resulted in quality for the customers and also a broader assortment of treatment possibilities. In a later paragraph this assumption is challenged.



**Step 2: Changes workload due to changed environment**

These two big changes did not remain unnoticed, new activities made their entrance. To be more precise, three new activities were added which have to be performed by physiotherapists. One of the question I asked myself as a researcher was if these added activities changed the workload of

physiotherapists. To answer this question, I had to find out if the physiotherapists do actually spend time on these activities, just as the ‘current activities’. In the theoretical chapter, workload was defined as “the amount of work an employee has to do in a given period of time” (Jex and Britt, 2014, p. 225).

All respondents were asked which activities they spend time on and with which frequency they do perform this certain activity (the distinction between current and added activities was not visible for the respondents).

<b>Activity</b>	<b>Amount of performing (N=314)</b>	<b>Percentage</b>	<b>Most popular frequency</b>
<i>Collaboration</i>	303	96,50%	Daily
<i>Organizing</i>	298	94,90%	Daily
<i>Knowledge sharing and scientific practice</i>	295	93,95%	Monthly and weekly
<i>Treatment of clients</i>	311	99,04%	Daily
<i>Doing administrative work</i>	313	99,68%	Daily
<i>Negotiate with insurance companies</i>	143	45,54%	Yearly
<i>Working in care networks</i>	221	70,38%	Monthly

Table 2: Performed activities

As shown in table 2 above, for all the activities, except for ‘negotiate with insurance companies’, the majority is performing the activity. To look more into detail to this output and especially to the added activities, the function of the physiotherapist was added to make a distinction. During the control questions, a physiotherapist was asked what his or her position is: employer, employee or otherwise. The option ‘otherwise’ has been categorized in three possibilities: a member of a partnership, owner of a sole proprietorship or freelancers. For each function an analysis was conducted to identify if the function influences the fact a physiotherapist is or is not spending time on the added activities: ‘doing administrative work’, ‘negotiate with insurance companies’ and ‘working in care networks’.

### Doing administrative work

With the exception of one respondent (employee), every physiotherapist spends time on ‘doing administrative work’. For all three functions, the frequency ‘daily’ was chosen by the vast majority, which is visible in table 3 below.

<b>Function:</b>	<b>Employer (N=90)</b>	<b>Employee (N=194)</b>	<b>Otherwise (N=30)</b>
<i>Performing ‘doing administrative work’</i>	100%	99,48%	100%
<i>Popular frequency</i>	Daily: 93,33%	Daily: 94,82%	Daily: 86,67%

Table 3: Doing administrative work

### Negotiate with insurance companies

Negotiating is not that often performed by employees, which makes sense because via comments of physiotherapists it became clear that employed physiotherapists often are not part of the negotiations, because there is an one year contract with a fixed fee for the whole practice. They are not paid per treatment, they receive a monthly salary. The negotiation is the responsibility of the practice owner. Table 4 below shows the exact results.

<b>Function:</b>	<b>Employer (N=90)</b>	<b>Employee (N=194)</b>	<b>Otherwise (N=30)</b>
<i>Performing ‘negotiate with insurance companies’</i>	75,55%	31,95%	43,33%
<i>Popular frequency</i>	Yearly: 76,47%	Yearly: 69,35%	Yearly: 92,31%

Table 4: Negotiate with insurance companies

### Working in care networks

In the introduction it was already mentioned that the importance of working in care networks is increasing, which is also shown in table 5 below. The majority of every function is performing this activity, whereby the employer is leading. Despite the function, the frequency that is chosen in most cases is monthly.

<b>Function:</b>	<b>Employer (N=90)</b>	<b>Employee (N=194)</b>	<b>Otherwise (N=30)</b>
<i>Performing the activity</i>	74,44%	70,10%	60,00%
<i>Popular frequency</i>	Monthly: 52,24%	Monthly: 52,21%	Monthly: 66,66%

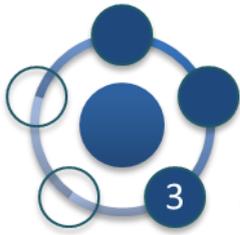
Table 5: Working in care networks

Because all three categories of the ‘otherwise’ option can be seen as quite similar to the employer function (because as a member of a partnership he/she is (partly) the owner, just as the two other categories). These two groups (employer and otherwise) were merged.

This means that 30 + 90 = 120 physiotherapists are a (semi)-employer and that with this merged function group the following can be concluded: the only significant difference occurs for ‘negotiating with insurance companies’. All three added activities, due to the changed environment, have changed and increased the workload of physiotherapists. The activity ‘negotiate with insurance companies’ is mainly performed by employers, members of a partnership, owners of a sole proprietorship and freelancers, but less by employees.

<b>Function / activity</b>	<b>Total</b>	<b>Percentage</b>	<b>Function / activity</b>	<b>Total</b>	<b>Percentage</b>
<i>Employer (merged category)</i>	120	100%	<i>Employee</i>	194	100%
<i>Activity 1</i>	120	100%	<i>Activity 1</i>	193	99,48%
<i>Activity 2</i>	81	<b>67,5%</b>	<i>Activity 2</i>	62	<b>31,96%</b>
<i>Activity 3</i>	85	70,83%	<i>Activity 3</i>	136	70,10%

Table 6: Increase workload



### Step 3: Difference between the perceived workload of the added activities and the current activities

The first two steps answered the questions about what has changed the environment and if these changes have changed the workload of physiotherapists. How do physiotherapists perceive the workload? Is the perceived workload higher for the added activities than for the current activities? And was this relation moderated by, for example, the years of service or gender? These questions are answered in this paragraph.

Earlier in this research, an assumption was written about that the perceived workload of the added activities was higher than for the current activities. This assumption is true. To come to this conclusion, an analysis of variance (ANOVA) had to be run. To be able to run this analysis, the variables needed had to be merged, to get one score for every respondent. The activities were divided into 'current' and 'added' activities, whereby the current activities are 'collaboration', 'knowledge sharing and scientific practice', 'treatment of clients', 'societal acting' and 'professional acting'. 'Organizing' should also be part of this merged variable, but unfortunately a mistake was made while building the flow structure into the questions. As a result, the respondents did not receive the follow up questions about the perceived workload of 'organizing'.

The merged variable of 'added' activities' did consist of 'doing administrative work', 'negotiate with insurance companies' and 'working in care networks'. The two groups did exist of respectively five and three variables, whereby the mean of the 1 to 5 scale was taken. The requirement was that the respondents had filled out at least one activity.

As described earlier, the assumption was that the workload for the 'added activities' is higher than for the 'current activities'.

With all variables merged, the ANOVA was run. To be more precise, a repeated-measures ANOVA was done, because the variable 'type of activity' is a 'within subject variable'. By using this test the problem of correlated scores is not an issue anymore (Field, 2013). *"Repeated-measures is a term used when the same participants participate in all conditions of an experiment"* (Field, 2013, p. 458).

The results show that the 'type of activity' was significantly affected by the level of perceived workload of a physiotherapist,  $F(1, 262) = 402.48, p < .05$ . In figure 3 below, the direction of this relation is shown, which means that the perceived workload is significantly higher for the added activities compared to the current activities.

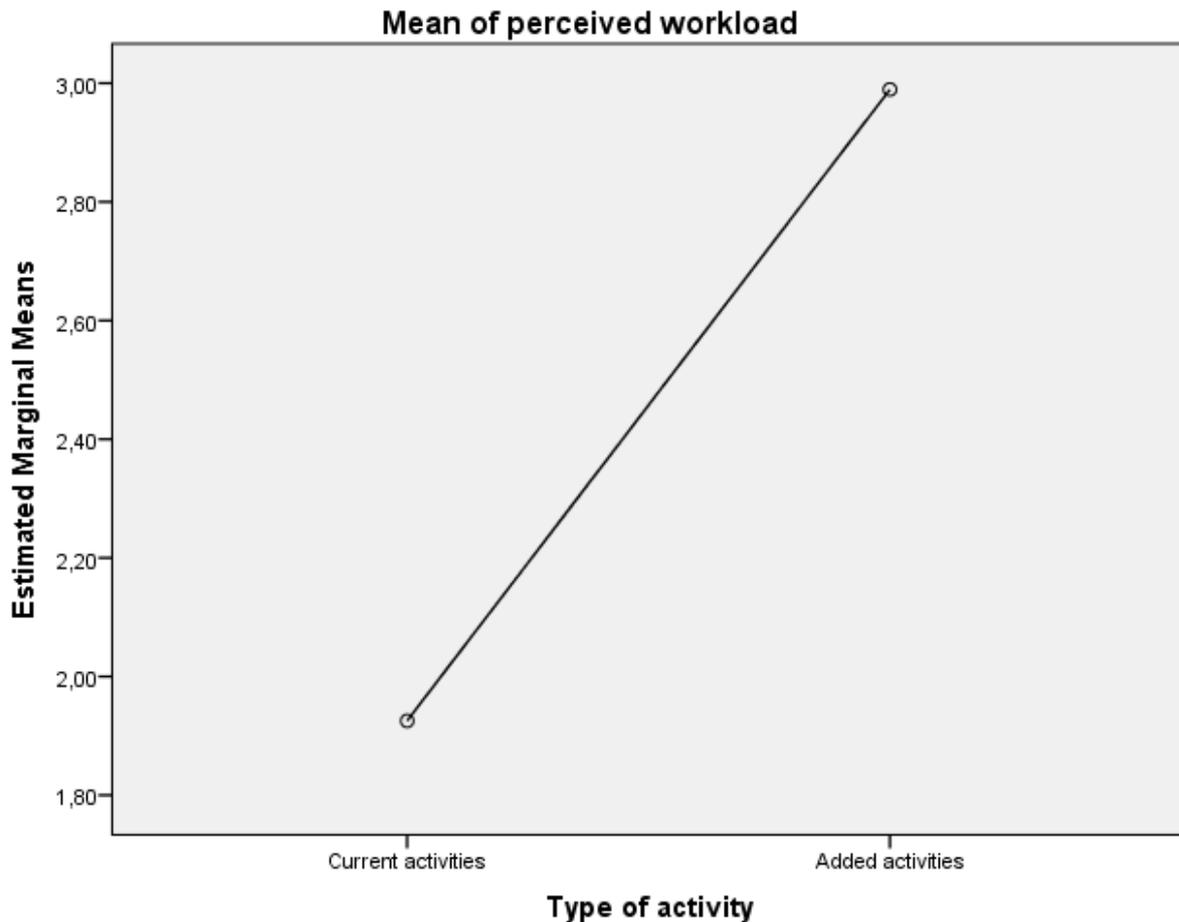


Figure 3: Workload for type of activity

It became clear that the assumption true, it becomes more and more interesting to find out if this relation is moderated by years of service and gender. Years of service is interesting, because a distinction can be made between the physiotherapists who work before and after the changes (more than 12 years) and physiotherapists who only know the new situation.

The variable, which has measured the years of service, was split into two groups. The period in which the changes made their entrance started in 2004. Before 2004 the 'old situation' was in place. Therefore, two groups were made whereby a differentiation is made for physiotherapists

who also have worked in the 'old situation' and those who only worked as a physiotherapist with the 'added activities' already in place. The limit is 12 years, so the first group filled out 12 or more years and the other group less than 12 years. A frequency table shows that 52,5% percent of the respondents belong to the group 0-12 years and the other 47,5% belongs to the group >12 years.

With all the variables ready for the tests, the moderated effect was tested. For this case, the assumption was that the workload for the 'added activities' is higher than for the 'current activities', especially for physiotherapists who also have worked in the 'old situation' (>12 years).

To conclude, if this effect is moderated by the more or less than 12 years, the results of the interaction effect are needed. The results show that the relationship between 'type of activity' on the level of perceived workload is significantly moderated by 'years of service',  $F(1, 262) = 5.97$ ,  $p < .05$ .

As shown in figure 4 below, the perceived workload for the added activities is higher for physiotherapists who work longer than 12 years than for the physiotherapists who only worked in the 'new situation'. The difference between the perceived workload for the current activities is extremely small, but in this case the perceived workload is a bit higher for the physiotherapists who are more than 12 years working as a physiotherapists.

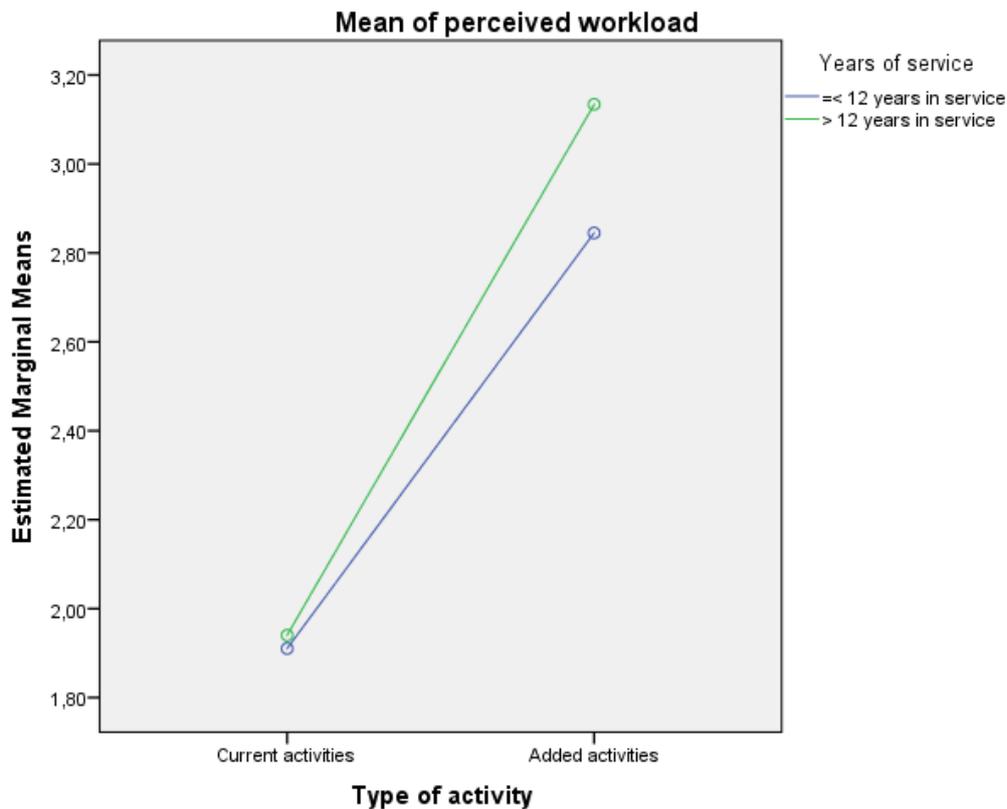


Figure 4: Moderated by years of service

To sift through the results of the analysis of variance, a post-hoc analysis was done. An independent sample t-test was done. According to Field (2013, p.325) an independent samples t-test “is used when there are two experimental conditions and different participants were assigned to each condition”. The t-tests were used to find out if the following assumptions are true:

- The current activities do not have a significant effect on the perceived workload
- The added activities do have a significant effect on the perceived workload

On average, respondents who worked less than 12 years have a lower level of perceived workload on the current activities ( $M = 1.92$ ,  $SE = .06$ ) than respondents who worked more than 12 years ( $M = 1.96$ ,  $SE = .06$ ). This difference was not significant  $t(277) = -.50$ ,  $p > .05$ .



On average, respondents who worked less than 12 years have a lower level of perceived workload on the added activities ( $M = 2.85, SE = .08$ ) than respondents who worked more than 12 years ( $M = 3.13, SE = .08$ ). This difference was significant  $t(262) = -2.60, p < .05$ .

Based on these two outcomes, both assumptions are true. This makes sense because the group who worked less than 12 years do not know 'better'. They only learned how to get their work done based on all the activities they have to perform, in other words, for them the 'added activities' are not added. For the physiotherapists who did work before the changes, know how the previous situation was and therefore to them the 'added activities' are extra. Now it is proven that the level of perceived workload is higher for the added activities than for the current activities, especially for physiotherapists who already worked longer than 12 years, but there is no inside yet in the activities individually. To get this information, a non-parametric test was done. A parametric test is not possible here because the perceived workload is measured on a 1-5 scale, which is not an interval but an ordinal variable.

The appropriate test to measure the activities on an individual basis, according to Field (2003), is a Pearson Chi-square test. With these cross-tabs a comparison can be made for the two groups ( $\leq 12$  years and  $> 12$  years) and the level of perceived workload for all the six activities separately, whereby a distinction was made based on regulatory and operational activities.

**Regulatory activities**

Levels of perceived workload: Activity:	not aggravating	A little bit aggravating	On average aggravating	A lot aggravating	Extremely a lot aggravating	Total
<b>Collaboration</b>	36,26%	51,22%				
<i><math>\leq 12</math> years</i>	57	42	28	5	0	132
<i><math>&gt; 12</math> years</i>	49	42	41	5	1	138
<b>Knowledge sharing and scientific practice</b>	35,20%		45,06%			
<i><math>\leq 12</math> years</i>	45	32	38	11	0	126



> 12 years	43	40	35	6	0	124
<b>Societal acting</b>	56,48%	45,74%				
=< 12 years	59	24	14	2	1	100
> 12 years	63	19	27	5	2	116
<b>Professional acting</b>	57,21%	45,00%				
=< 12 years	54	20	14	3	1	92
> 12 years	61	19	22	5	2	109

Table 6: Regulatory activities

**Operational activities**

Levels of perceived workload: Activity:	not aggravating	A little bit aggravating	On average aggravating	A lot aggravating	Extremely a lot aggravating	Total
<b>Treatment of clients</b>	39,92%		48,73%			
=< 12 years	47	26	44	11	2	130
> 12 years	58	35	33	5	2	133
<b>Doing administrative work</b>				44,87%		
=< 12 years	7	13	27	61	22	130
> 12 years	8	7	31	57	30	133
<b>Negotiate with IC</b>						
=< 12 years	24	10	4	13	5	56
> 12 years	8	6	13	25	16	68
<b>Working in care networks</b>	38,02%	61,98%				

=< 12 years	42	32	13	5	0	94
> 12 years	31	38	23	6	0	98

Table 7: Operational activities

For all activities an independent samples t-test was done. The results showed that there was only a significant association between the years of service and the extent to which 'negotiate with insurance companies' was perceived as aggravating  $\chi^2(4) = 22.36, p < .001$ . As shown in table 7, physiotherapists with more than 12 years of service have a higher level of perceived workload of this activity than physiotherapists who are working less than 12 years as a physiotherapist.

For all the other activities, the association was not significant. But in table 6 and 7, separated by regulatory and operational classification, the biggest answer group (except from 'not aggravating') was marked red, with the percentage above. The percentage is based on the total respondents minus the respondents who filled out 'not aggravating'. Also this percentage is given in table 7 above.

The question '*is the workload of the added activities different from the workload of the current activities and is this relation moderated by the amount of years working as a physiotherapist?*' can shortly be answered: the workload of the added activities is higher than the workload of the current activities and this relation is moderated by the amount of years working as a physiotherapist, namely physiotherapists who are working more than 12 years as a physiotherapist have a higher level of the perceived workload on the added activities.

The same has been done for gender as moderated effect. The results show that the relationship between 'type of activity' on the level of perceived workload is not significantly moderated by 'gender',  $F(1, 272) = 0.01, p > .05$ . In addition, when the focus is only on gender, the results show a significant effect,  $F(1, 272) = 3707.13, p < .05$ . As shown in figure 5 below, women have a lower perceived workload than man.

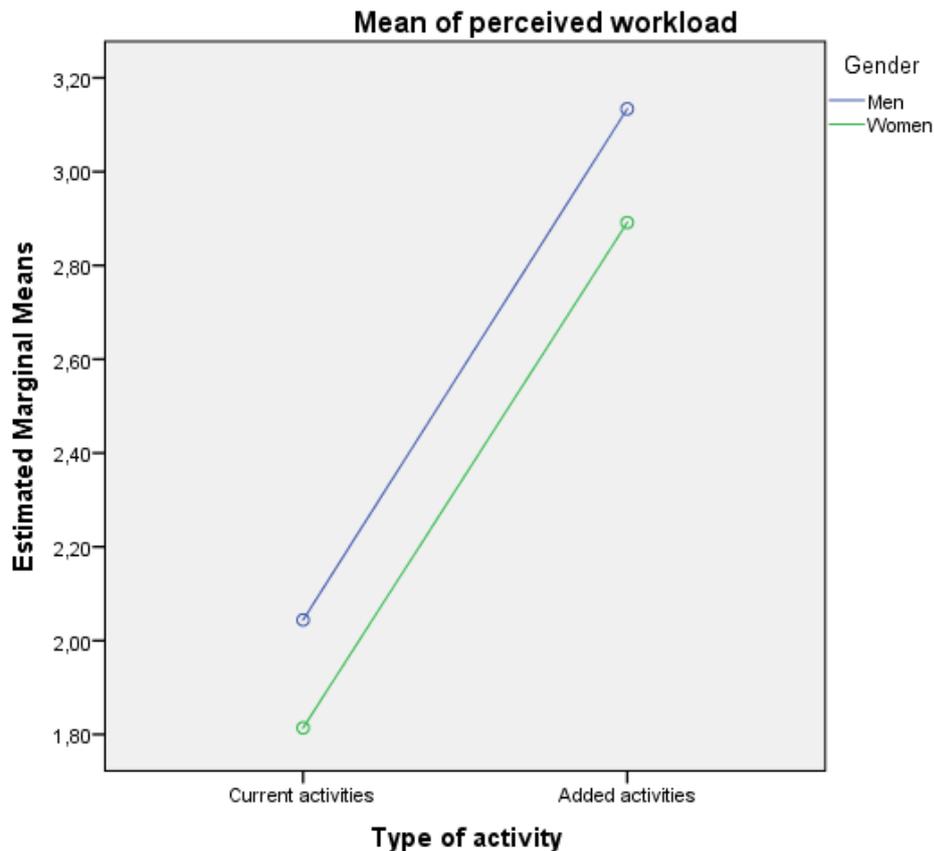
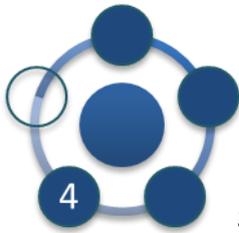


Figure 5: Gender



#### Step 4: Reasons for perceived workload

At this moment, we do know that the added activities have a higher level of perceived workload and that years of service has a moderating effect and gender has not. But, what underlies this perceived workload? This question is answered in the coming paragraph.

The respondents received, for every activity they spend time on, individually a question about why they perceive a certain activity as aggravating. They only got this question if they did not answer that they did not perceive a certain activity as aggravating. With this information, it became possible to find out what underlies the perceived workload. The questions have four options, the first one was '*I do not have enough skills to perform the activity*', the second option was '*it is not my responsibility*', the third option was '*with all the other activities, it is too much work*' and the respondents got the opportunity to choose the 'other' option and fill out what the



reason is. These ‘other’ reasons were categorized, with the result that every respondent had one number for this question. Surprisingly, for all the activities, the option ‘with all the other activities, it is too much work’ was chosen by the vast majority. Only for ‘treatment of clients’ and ‘negotiate with insurance companies’ this answer was not picked by more than 50% of the respondents. In case of ‘treatment of clients’, several reasons were also picked a couple of times. For example that it is physically and mentally aggravating and that keeping track of the administrative work during the treatment is aggravating. For ‘negotiate with insurance companies’, there was one other reason, which was picked many times, namely ‘you cannot call it a negotiation’. This outcome corresponds to the assumption, because in the introduction it was already mentioned that the influence of physiotherapists is small. The other assumption was that often the reason ‘it is not my responsibility’ was picked, this assumption is not true. Instead, the reason ‘with all the other activities, it is too much work’ is the multiple winner, as shown in table 8 below.

<b>Reason: Activity:</b>	With all the other activities, it is too much work	You cannot call it a negotiation
<i>Collaboration (N=155)</i>	111 (71,61%)	
<i>Knowledge sharing and scientific practice (N=155)</i>	120 (77,42)	
<i>Societal acting (N=96)</i>	54 (56,25%)	
<i>Professional acting(N=79)</i>	49 (62,02%)	
<i>Treatment of clients (N=163)</i>	69 (42,33%)	
<i>Doing administrative work (N=258)</i>	150 (58,14%)	
<i>Negotiate with IC (N=93)</i>	33 (25,48%)	28 (30,11%)
<i>Working in care networks (N=120)</i>	89 (74,17%)	

Table 8: Reasons perceived workload

In the previous paragraph, all the activities were looked at individually. During this analyses, it became clear that especially ‘negotiate with insurance companies’ and ‘doing administrative work’ are perceived as aggravating. To give a better insight into the reason for this perceived workload, some quotes of respondents are used to show their feelings. A physiotherapist wrote: *“The tremendous amount of administration costs a lot of time. The most of this is not for the purpose of the client, but created by and for the insurance companies.”* Another respondent filled out: *“The insurance companies require more and more administrative actions but we do not get more time or money for it. As a results, it has to be done in our ‘own time’.”* Thereby, several respondents filled out that it is at the expense of the time of the client and it is not quality

improving. Even though the system for free rates was created to 'give a positive impulse on quality and it was supposed to be more client-oriented', physiotherapists are saying the opposite.

Reasons given for the perceived workload of 'negotiate with insurance companies' sound like "*I experience mental frustration because you cannot call it a negotiation. If you finally have contact with an insurance company, it is a bureaucratic wall where I cannot get through.*" And another respondent filled out: "*it's a lot of time without results: there is no contact person, we do not have an honest position in the market and thereby there is no appreciation for our work but it is motivated by distrust*". Also in this case, the Dutch government said that the insurance companies and the physiotherapists can easily find each other and that the negotiation would result in a higher price for physiotherapists who provide better quality of service and besides that, market conform prices would be reached. These answers of the respondents do imply otherwise.

To get back to the most picked reason, '*with all the other activities, it is too much work*' it is interesting to look closer to the questions about the overtime hours. Of the 314 respondents in total, 208 filled out the question if they work in overtime. 94,71% answered this question with yes. The follow up question asked for the frequency of overtime, whereby 45,69% said that they work overtime hours on a weekly basis, and 41,12% answered this question with a daily basis. To refer back to the theoretical chapter, it can be concluded that quantitative workload applies to the situation of the physiotherapists, which means that an employee has more work to do than can be accomplished in a comfortable way (Katz and Kahn, 1978).

To get all the activities done, physiotherapists have to work in their 'own time'. But, what kind of activities do they perform while working overtime hours? Based on the previous answers, which were already given, the assumption is that especially 'doing administrative work' will be performed during overtime hours. As shown in table 9 below, 91% of the respondents perform administrative work in the overtime hours.

Type of activity	Percentage of physiotherapists who perform this activity in overtime hours
<i>Collaboration</i>	37,5%
<i>Organizing</i>	51,0%
<i>Knowledge sharing and scientific practice</i>	38,0%
<i>Treatment of clients</i>	52,0%
<i>Doing administrative work</i>	91,5%
<i>Negotiate with insurance companies</i>	10,5%
<i>Working in care networks</i>	33,0%

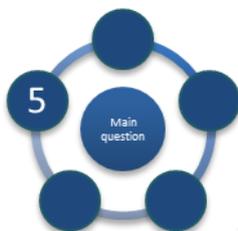
Table 9: Performed activities during overtime hours

It is imaginable that when working overtime, on a daily or weekly frequency, is it perceived as aggravating. To test this assumption, the respondents were asked to what extent they perceive the overtime hours as aggravating. It may not be a surprise that the outcome shows that the two biggest answer groups are ‘on average aggravating’ and ‘a lot aggravating’ and that the smallest group is ‘not aggravating’.

Levels of perceived: Workload:	not aggravating	A little bit aggravating	On average aggravating	A lot aggravating	Extremely a lot aggravating	Total
<i>Frequency</i>	14	35	74	55	19	197
<i>Percentage</i>	7,1%	17,8%	37,6%	27,9%	9,6%	100%

Table 10: perceived workload overtime hours

But, what is even more interesting, is the reason behind the perceived workload of the overtime hours. 172 physiotherapists filled out this question, whereby the biggest group (42,6%) answered that it negatively effects their work-life balance. Another answer which was given quite often is that the amount of administrative work is a lot and that it is unpaid as well.



**Step 5: Relation between the reasons for the perceived workload and the changed environment**

To make the circle round, the relationship between the changed environment and the reasons for the perceived workload has to be made. In this paragraph, the question ‘how are the underlying reasons of the perceived workload related to the changed environment?’ is answered.

By answering the third sub question it became clear that physiotherapists do perceive increased workload. Thereby they perceived more workload for the three 'added activities', than they do for the 'current activities'. Due to the answers in the previous sub question, it became clear that for all the activities, the most picked reason for the perceived workload was that '*with all the other activities, it is too much work*'.

The changed environment consists of two big changes, namely the fact that physiotherapy is no longer part of the basic insurance and the second change is the shift from fixed prices to free prices. These two changes brought three activities who were added to the activities physiotherapist already had to perform. For example, physiotherapists have to "negotiate" with insurance companies about the prices for a treatment. Due to the changed environment, the total amount of activities became nine, instead of six.

Knowing this, combined with the reasons for the perceived workload (which is increased), it can be said that the increased workload is strongly related to the changed environment. This became more clear when a significant relation was found between the workload and the years of service. Physiotherapists who worked before the changes, do nowadays perceive a higher workload, especially for the added activities. So, in short: the added activities, as a result of the changed environment, have resulted in a higher workload for physiotherapists and the main reason they give for this perceived workload is the fact that '*with all the other activities, it is too much work*'.

The five sub questions were answered in the previous paragraphs. Building further on these answers, the next chapter will draw the conclusion, which is done by answering the main question of this research. Thereby, further recommendations will be drawn as well.

## 5. Conclusion and discussion

### 5.1 Conclusion

This final chapter will focus on answering the main question of this research: *'To what extent is the workload of physiotherapists in terms of regulatory and operational activities affected by the changed environment?'* By answering this question, the objective of this research can be reached. The objective of this research is: *'Gain insight into the workload of physiotherapists in terms of their regulatory and operational activities in order to advise them to adapt to the changed environment.'* The main question will be answered by combining the results shown in the previous chapter and the theoretical background of this research.

In the results chapter the five sub questions were answered, which has step by step led to the answer of the main question. Based on the analyses that were conducted, it can be concluded that the workload of physiotherapists in terms of regulatory and operational activities is affected by the changed environment. Due to the changed environment, the workload is increased by three activities (doing administrative work, negotiate with insurance companies and working in care networks) that are performed by the vast majority of physiotherapists. Only 'negotiate with insurance companies' is less performed by employees, in comparison to employers. Thereby, the perceived workload for these three added activities is significantly higher than for the 'current activities', especially when a physiotherapist is already working more than 12 years as a physiotherapist. The most picked reason for the perceived workload for all the activities is *'with all the other activities, it is too much work'*, which makes sense if the percentage of physiotherapists who work overtime hours is shown: 94,71%. It also became clear that the two activities, which have a higher level of perceived workload, are 'doing administrative work' and 'negotiate with insurance companies'. 91% of the physiotherapists who answered to work overtime hours is doing administrative work in these hours. A frequently given underlying reason for the perceived workload of overtime hours is that it negatively affects their work-life balance.

But what does this answer of the main question mean? In the theoretical chapter it was described that regulation is defined as coping with change (De Sitter, 2000). Also it was noted that strategic regulation is needed when there are changes going on in the environment (De Sitter, 2000). The changed environment has resulted in three added activities. To be able to perform these added activities in a convenient way, also more regulatory potential is needed. As

mentioned in the theory, regulatory potential is needed when there is a high level of workload (De Sitter, 2000). For two out of the three added activities, a high level of perceived workload was measured. In this specific case, regulatory potential is seen as power. This was mentioned as one of the factors of regulatory potential in the theory. Although three activities were added, the regulatory potential has not increased. In the case of 'negotiate with insurance companies' the physiotherapists complain about the fact that it is not a negotiation, the power of the insurance companies is too big. When there is not enough regulatory potential and the workload is high, stress, anger or feelings of powerlessness can occur (De Sitter, 2000). A closer look on this will be taken in the discussion paragraph.

Strategic regulation entails setting goals for a transformation process. A transformation process was defined as turning some input into some output (Achterbergh and Vriens, 2010). In the case of a physiotherapist, the transformation process is treating a client with physical problems to solve these problems and finally receiving money for this treatment from the insurance companies. However, the input, which is needed to realize the transformation process, has been changed. To use De Sitter's words (2000): the market asks for new requirements for a particular product: the administrative work has been increased, due to the grown requirements of the insurance companies. To realize a transformation processes and to regulate them operationally, certain conditions have to be installed, according to the theory in this research. These conditions were divided into three classes, namely conditions with respect to the division of work, conditions with respect to human resources and conditions pertaining technological means. The results have shown that there is no problem with the technological means, but the elements 'division of work' and the 'human resources' are elements, which come back in the disturbances. Whereby the amount of administrative work and the way how the negotiation went with insurances companies are the biggest disturbances.

The transformation process of physiotherapists is challenged by the environment and this has led to a changed way of working (more administrative work, negotiations and working in care networks). When a change in the environment has been established, a redesign of the way of working can be necessary. The way of working has been changed for physiotherapists, not due to a redesign but to new requirements (administrative work and negotiation with insurance companies). This new way of working is not a convenient way, according to physiotherapists, because 'with all the other activities, it is too much work'. They have to work overtime hours, to

get all the requirements done, before receiving money from insurance companies. Therefore, a redesign of the way of working of physiotherapists is necessary to cope with the increased workload and even better, to lower to perceived workload and increase the regulatory potential.

To step in the shoes of a designer, there are two things that can be done: a designer can decrease the variety of disturbance (attenuation) and second, a designer can increase the regulatory potential of a regulator (amplification) (Achterbergh and Vriens, 2014). But, to deal with disturbances, two activities are essential: monitoring the transformation processes, and based on the monitoring results, measures need to be taken to do something about the disturbances. These activities, needed to deal with disturbances, are examples of operational regulation activities. In this research, 'knowledge sharing and scientific practice', 'societal acting', 'professional acting' and 'doing administrative work' were classified as operational regulation activities.

The transformation process has been monitored by analyzing the results of the survey, which showed that 'doing administrative work' gives problems. The norms for this activities, which are not set by the physiotherapists themselves, but by the government are, in the eyes of the physiotherapists not reachable in the given time they have for the treatment of a client. Therefore, the next step needs to be taken: do something about this disturbance. Besides the disturbance of the enormous amount of administrative work, also the fact that the physiotherapists do not feel that they are negotiating with the insurance companies is a problem, because they can just 'sink or swim'. The activity 'negotiate with insurance companies' has been classified as a 'supporting activity', because this activity is not directly-order related. This negotiation has to be performed to support the making activity 'treatment of clients', to make sure that the physiotherapists have a contract with an insurance company and get a compensation for the treatment. In fact, it does not support the physiotherapist when treating the clients because it brings extra work and it is perceived as aggravating because it is 'no negotiation'.

To sum up, a redesign is needed. A redesign tries to change the processes in order to improve them. A redesign can be seen as an intervention, for which Achterbergh and Vriens (2014) designed the 3D-model. In the recommendation paragraph, the 3D-model will be explained in more detail, even as two other recommendations.

## 5.2 Discussion

In this paragraph the theory used in this research is reflected on and will be explicated. Besides, positive aspects as well as limitations of the research will be addressed and possibilities for future research will be elaborated on.

The theory of Achterbergh and Vriens (2014), Ashby (1958) and De Sitter (2000) was used to make a classification between the operational and regulatory activities of physiotherapists and to explain what transformation processes are and how they occur in organizations, including the three classes of conditions which are needed to realize a transformation process. At the same time, the concept workload was defined as the amount of work an employee has to do in a given period of time (Jex and Britt, 2014) and it set out different kinds of workload, whereby this research focused mainly on perceptions of workload, in more details qualitative workload (Katz and Kahn, 1978). Although this theoretical background has supported the research, the results showed elements, which were not directly related to the used theory. The used theory mentioned the fact that if a transformation process is not realized, a designer can decrease the variety of disturbance (attenuation) or a designer can increase the regulatory potential of a regulator (amplification) (Achterbergh and Vriens, 2014). Especially this second part, the regulatory potential, proved to be important. The used theory did not deepen this concept although this could have been interesting. According to De Sitter (2000) regulatory potential can be separated into internal and external regulatory potential. If this is couple to, for example, the feeling of having no influence during negotiation, it can be linked to the 'external regulatory potential' (De Sitter, 2000). When someone has external regulatory potential, it means that he is jointly searching for a solution for an occurring problem with partners (De Sitter, 2000). In this case, the problem is that there is no external regulatory potential. This counts for both the amount of administrative work, because if physiotherapists do not meet the requirements, they do not get the money and if they do not 'negotiate', they do not have a contract with an insurance company. According to De Sitter (2000), someone who has only internal regulatory potential, does not participate in the process of awarding sentence (De Sitter, 2000). When they are not a part of this process, they do not feel involved and therefore develop a feeling of alienation. It can be the case that although a lack of external regulatory potential, the internal regulatory potential can be high (De Sitter, 2000). In this case, someone can adapt the way of working to changing circumstances. He can be alienated to his 'work environment', but at the same time he can solve the occurring problems due to the changed environment. When this is the case, the chances of

having stress are relatively low (De Sitter, 2000). Physiotherapists do have the 'freedom' to design their own workday, because they are, for example, not obliged to spend 10 minutes of their treatment time to administrative work. They can 'choose' to perform this during overtime hours. This is also what is happening in reality, as shown in the results, but physiotherapists do perceive this working in overtime hours as aggravating. A possibility for future research is to find out if physiotherapists are alienating from their work processes and the level of stress they have as a result of a low external regulatory potential.

This research focused on workload but other research already has shown that workload is linked to a number of strains, including anxiety, physiological reactions such as cortisol, fatigue (Ganster & Rosen 2013) backache, headache, and gastrointestinal problems (Nixon et. al, 2011). Thereby, workload as a work demand is a major component of the demand-control model of stress (Karasek, 1979). This model suggests that jobs with high demands can be stressful, especially when the individual has low control over the job. It can be interesting to use this model for future research by physiotherapists because the activities which they perceive as aggravating, the capacity to regulate them is low or not present, which may be compared to 'low control'.

Besides the theoretical part, some positive aspects and limitations were entailed. Firstly the positive aspects are addressed.

The pre-tests which were done by three physiotherapists have increased the validity of the research. The feedback they gave on the questionnaire made it possible to update the questionnaire in a way that the questions were clear for physiotherapists and their 'language' was better used in the updated version. Also it has helped that the researcher spoke to three different physiotherapists to get a clear insight in the problems and actualities to optimize the subject of the research.

The choice to make use of a mail survey turned out positively, because it was easy for the researcher to spread the survey to the target audience, as well as for the physiotherapists who were asked to spread it to their network of physiotherapists.

Another positive aspect is that the assumptions, which were set up in the beginning of the research, have mostly proven to be true. It was assumed that the total workload of physiotherapists has increased due to the added activities, as a result of the changed

environment. Besides, it was assumed that the added activities would be perceived as more aggravating than the 'current activities'. This assumption was tested by using an repeated-measures ANOVA, which showed a significant effect. What was not assumed, but also turned out to be true, is that this significant effect is moderated by years of service. A physiotherapist who is already working for more than 12 years, has a higher level of workload, than physiotherapists who are working less than 12 years.

Next to the positive aspects, also some limitations of this research can be mentioned. Firstly, a mistake was made by building the flow into the questionnaire which resulted in missing values for the activity 'organizing'. The follow up questions about the reasons for the level of workload were not shown to respondents. For this reason, this data was missing, and the current activities did not exist of six activities during the analyses, but of five and no information was available about the reasons for the perceived workload to analyze this activity individually.

Although 314 physiotherapists filled out the survey, which is 83,30% of the desired sample, the amount 377 was not reached. Based on this, the conclusions that are drawn cannot totally be generalized to the whole population of physiotherapists. Besides, the sample represented all provinces in the Netherlands, both in cities and in villages.

The last question of the questionnaire was if the physiotherapists wanted to share additional information. Some of the physiotherapists used this question to provide the researcher with feedback. One of the aspects mentioned was about the fact that the questionnaire consisted of many similar questions, only the activity was different. This resulted in the fact that it was not always that amusing to fill out the survey.

This research intended to proof that the changed environment has led to an increased level of (perceived) workload. The researcher was not in the possession of a reference analysis, which was conducted before the environment changed. For this reason, it was necessary that the reasons for the perceived workload could be linked to the changed environment. During the questionnaire the respondents were somewhat pushed into a mindset while considering what the reasons were for the perceived workload. To decrease this 'push into a particular mindset', the option 'otherwise' was always given by answering an open question.

The last limitation is related to the overall research process. The researcher has been treated by several physiotherapists for three years. This may have resulted in a researcher bias. Constantly,

the researcher took the research ethics into account while conducting the research. All the filled out questionnaires were anonymous for the researcher and their data will not be shared with other parties. The participants were informed about the purpose of the study, their expected involvement and duration and they were asked if they would like to receive the outcome of the research. In the appendix the introduction e-mail, which was sent to physiotherapists and their practices, can be found.

### 5.3 Recommendations

At the end of the conclusion, it became clear that it is advisable to redesign the organizational infrastructure of the physiotherapy. But, next to a redesign, also other things can be done. A change in the division of work can result in quick wins and also organizing meetings to learn from each other can improve the effectiveness and efficiency. In this paragraph these three elements are explained individually.

Firstly, the redesign of the organizational infrastructure of the physiotherapy is elaborated on. In more detail, the organizational infrastructure of a physiotherapeutic practice in the Netherlands. An intervention, according to the 3D-model, can help a designer to episodically intervene in the structure of organizations. The goal of such an intervention is twofold: firstly it aims that the intervention is accepted and integrated in the organizational behavior and social practices. Thereby, the goal is optimizing the quality of the design as much as possible and its implementation. Hereby, a project infrastructure is needed, which is supporting the realization of the goal in and of the intervention. This 3D-model consists of three dimensions, namely the functional dimension, the social dimension and the infrastructural dimension. The functional dimension consists of four parts. It starts with the diagnosis, which included the following aspects: a gap analysis, which is a list of problems, an analysis of the causes of these problems should be conducted and finally a 'solution space' needs to be determined. This space consists of all the parameters which are regarded as a cause for the problematic values of the diagnostic variables and which values can be altered by means of a change in the infrastructure. The second step is the design phase. The goal of the design phase is to select infrastructural measures that can cause the parameters to have values so that the diagnostic values reach their desired norm values. To realize this goal, three steps need to be taken. Firstly, different realizations for each parameter need to be determined. Second, feasible combination of realizations is needed and lastly a combination of realizations needs to be selected.

The third phase is the implementation phase. For this phase, the goal is to actually implement the design, in other words to implement the proposed changes of the infrastructure. This has to be done by defining the differences between the proposed changes of the infrastructure and the current infrastructure. Based on the gaps that emerge, an implementation plan has to be made, in terms of a division of the intended change to the infrastructure into manageable and feasible portions. The last step is to carry out the implementation plan.

Afterwards an evaluation is important, which is the fourth phase. The goal for this phase is to determine whether the implemented solution has the desired effect.

As mentioned, the 3D-model consists of three dimensions. Not only the functional dimension, with the four phases, needs to be kept in mind but also the social dimension. To explain the social dimension, Schein's model (1986) of organizational change is needed. His model consists of three classes, which are the unfreeze part, the change part and the refreeze part. Key for the unfreeze part is installing a readiness for change. This entails three sub-goals: create disconfirmation, secondly to create anxiety or guilt. In this second stage, it is also important to describe the role of the desired new situation. The third sub-goal is to create physiological safety. The goal for the change part is to find alternative modes of behavior. This can be done by scanning the environment but also by identification with a role-model. The third part is the refreeze-goal which has the goal to make sure that the alternative mode of behavior is incorporated into the daily routines and the work of organizational members. To realize this, two sub-goals are given. The first is to make sure that the alternative modes of behavior fits someone's personality. The second sub-goal is to make sure that the alternative mode of behavior fits socially.

The third pillar of the 3D-model is the infrastructural dimension. The overall objective of the infrastructural dimension is designing the infrastructure to realize the functional and social goals. This can be done according to three steps. Firstly to structure the intervention. This entails determining the structure of the organization to realize the intervention. It also included HR-measures, for example rewards, leadership or, for example, the role of a consultant. The third part is technology, which entails communication technology, research methods and problem-solving methods.

At this point, all the three dimensions of the 3D-model are explained, but it is important to connect the dimensions for a successful intervention. This can be done when the following seven steps are walked through. The first step is to determine the functional goals, the second step is to decide the social goals. After that the objects of communication need to be set, the character of communication has to be chosen and the required participants to realize the social and function goals need to be included. Thereby, it needs to be clear what the roles of the participants are. The fourth step is deciding on the structural configuration and the prolongation thereof to determine the HR-design. The sixth step is determine which supporting technologies are needed in the intervention and lastly, alignment needs to be determined between the selections of the infrastructural axis.

When physiotherapists follow these steps, a new design for the way of working can be established, whereby the focus should be on finding ways to increase the regulatory potential and decrease the changes for disturbances. To give one example of decreasing the change on a disturbance, related to the amount of administrative work, is to provide a typing course for them who are not typing that fast. When they are able to type faster, the time they spend on administrative work will decrease. Thereby, it can also be an option to look for newer technology, for example to look for voice recognition software. Via this way, the physiotherapists can be recorded while treating a client instead of typing everything afterwards.

The second recommendations is about the division of work. The starting point should be: *'it is the way it is, but how can it be more effective and efficient?'* To make it more effective and efficient, the work should be less aggravating and less time consuming. To establish this, I would recommend to have a closer look to the competencies and skills of a physiotherapists. It is proven by Meyers and van Woerkom (2016) that if someone need specific competencies for a function and these competencies are in line with someone preferred behavior and strengths, it is positively affecting the work-related well-being. The practices may have a look to their employees and find out what their preferred behavior is and adapt the division of work according to this. For example, it may that some physiotherapists have less resistance to administrative work or are better in negotiation and do not mind to negotiate. I think that when the division of work is more based on competences and skills and preferred behavior, the level of perceived workload will be lower.

The third recommendation is about learning from each other. I think it will be fruitful to organize meetings for physiotherapists whereby topics are discussed as administrative work and negotiation. They can learn from each other, hear about other ways of working and implement some of these ways in their own way of working. I realize that these meetings are also time consuming and extra work, but I think in the end this will improve the effectiveness of physiotherapists. They may have to invest some extra time at first, but it will save time in the end.

In short, these three recommendations are not mutually exclusive but the redesign is the most time consuming and expensive recommendation. The other two are more manageable on a shorter period, but I think in the end a redesign is needed. The other two recommendation can be seen as starting points for the redesign. I may give the physiotherapists the motivation to start with the redesign if they first experience that the two other recommendations show positive results.

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## Appendices

### Appendix 1: Introduction mail

The mail that was sent to physiotherapists to invite them to participate to and spread my questionnaire is in Dutch, because the targeted audience is Dutch as well.

*Geachte fysiotherapeut,*

*Mijn naam is Leonie Klaassen en ik ben Master student aan de Radboud Universiteit te Nijmegen. Ik ben momenteel met mijn masterscriptie bezig. Het gaat over de veranderingen in de markt van de fysiotherapie en in hoeverre dit invloed heeft op de werkdruk van fysiotherapeuten. Om antwoord te kunnen geven op deze vraag, heb ik een enquête gemaakt. Om betrouwbare conclusies te trekken, heb ik 400 ingevulde enquêtes nodig. Met mijn eigen netwerk kom ik hier niet aan en daarom kan ik alle hulp goed gebruiken. Zou u mij willen helpen met het invullen en verspreiden van mijn enquête onder uw netwerk/praktijk van fysiotherapeuten? Het duurt 10-15 minuten en de enquête is volledig anoniem. Mocht u na afloop van de enquête geïnteresseerd zijn in de resultaten, dan kunt u uw e-mailadres achterlaten in de daarvoor aangegeven ruimte.*

*De link van de enquête is:*

[http://fmru.az1.qualtrics.com/jfe3/form/SV\\_davhWfqbEXgkbFD](http://fmru.az1.qualtrics.com/jfe3/form/SV_davhWfqbEXgkbFD)

*Mijn dank is groot!*

*Met vriendelijke groeten,*

*Leonie Klaassen*

E: [leonie\\_klaassen@hotmail.com](mailto:leonie_klaassen@hotmail.com)

T: 0626929682

## Appendix 2: Questionnaire

Beste fysiotherapeut,

Mijn naam is Leonie Klaassen, een master studente aan de Radboud Universiteit Nijmegen. Graag nodig ik u uit om deel te nemen aan mijn enquête. De enquête onderzoekt in hoeverre de werkdruk van fysiotherapeuten onderhevig is geweest aan de veranderingen in het werkveld van de fysiotherapie.

De enquête is volledig anoniem en het doel is om inzicht te krijgen in welke activiteiten fysiotherapeuten uitvoeren en in welke mate zij deze activiteiten als belastend ervaren.

Het invullen van de enquête duurt 10-15 minuten. Wanneer het onderzoek is afgerond en de resultaten bekend zijn, deel ik die graag met u. Aan het einde van de enquête krijgt u de mogelijkheid om uw e-mailadres in te vullen zodat ik de resultaten naar u kan mailen.

Bij voorbaat mijn dank voor uw medewerking.  
Voor vragen kunt u mij mailen op: [leonie\\_klaassen@hotmail.com](mailto:leonie_klaassen@hotmail.com)

Leonie Klaassen

In deze enquête wordt gesproken over activiteiten. Om voor u inzichtelijk te maken hoe deze activiteiten gedefinieerd zijn, kunt u de volgende link te openen. Wanneer u op de link klikt, opent een nieuw tabblad waarin u een PDF-bestand vindt met alle definities die u nodig kunt hebben bij het invullen van deze enquête:

<https://www.scribd.com/document/322360251/Definities-activiteiten>

De enquête begint eerst met enkele algemene vragen.



Geslacht:

- Man
- Vrouw

---

Wat is uw leeftijd?

---

Hoeveel jaar bent u al werkzaam als fysiotherapeut?

---

Wat is uw functie binnen de praktijk waar u werkt?

- Ik ben werkgever
- Ik ben werknemer

Anders, namelijk:



Wat is uw functie binnen de praktijk waar u werkt?

- Ik ben werkgever
- Ik ben werknemer
- Anders, namelijk:

In welke provincie bent u werkzaam als fysiotherapeut?

- Groningen
- Utrecht
- Friesland
- Noord-Holland
- Drenthe
- Zuid-Holland
- Overijssel
- Zeeland
- Flevoland
- Noord-Brabant
- Gelderland
- Limburg

Locatie van uw werkplek:

- Stad
- Dorp

U heeft nu alle algemene vragen ingevuld. De enquête zal nu verder gaan met vragen over de activiteiten die u uitvoert als fysiotherapeut.

Aan welke van de volgende activiteiten besteedt u tijd tijdens uw werk en met welke frequentie?

	Geen tijd	Dagelijks	Wekelijks	Maandelijks	Jaarlijks
Samenwerken	<input type="radio"/>				
Organiseren	<input type="radio"/>				
Kennis delen en wetenschap beoefenen	<input type="radio"/>				
Behandelen van cliënten	<input type="radio"/>				
Administratief werk	<input type="radio"/>				
Onderhandelen met verzekeringsmaatschappijen	<input type="radio"/>				
Werken in zorgnetwerken	<input type="radio"/>				

Ontvangt uw praktijk met enige regelmaat cliënten van andere zorgaanbieders (bijv. huisarts, sportarts, verpleegkunde) waar u mee samenwerkt?

- Ja
- Nee

Stuurt uw praktijk met enige regelmaat cliënten naar andere zorgaanbieders (bijv. huisarts, sportarts, verpleegkunde) waar u mee samenwerkt?

- Ja
- Nee

Coördineert uw praktijk op een permanente basis dossiers met andere zorgaanbieders (bijv. huisarts, sportarts, verpleegkunde) waar u mee samenwerkt?

- Ja
- Nee

Heeft uw praktijk programma's met andere zorgaanbieders (bijv. huisarts, sportarts, verpleegkunde) waar u mee samenwerkt, en waarin cliënten door middel van een formeel samenwerkingsverband worden behandeld?

- Ja
- Nee

Stuurt uw praktijk betalingen naar de zorgaanbieders (bijv. huisarts, sportarts, verpleegkunde) waar u mee samenwerkt, voor het leveren van diensten aan cliënten op contractuele basis?

- Ja
- Nee

Hierna volgde voor alle activiteiten, waar de fysiotherapeut van had aangegeven er minstens dagelijks tijd aan te besteden, enkele vragen. Voor de activiteit 'samenwerken', met de aangegeven frequentie van dagelijks is een voorbeeld gegeven:

U heeft net aangegeven dagelijks tijd te besteden aan de activiteit 'samenwerken'. Kunt u aangeven hoeveel tijd (**in minuten**) u gemiddeld dagelijks besteedt aan samenwerken?

U heeft net aangegeven tijd te besteden aan 'samenwerken'. In hoeverre ervaart u deze activiteit als belastend?

- Niet belastend
- Een beetje belastend
- Gemiddeld belastend
- Erg belastend
- Heel erg belastend

Waarom ervaart u deze activiteit als belastend? (Meerdere antwoorden mogelijk)

- Ik heb niet voldoende vaardigheden om deze activiteit uit te voeren
- Ik vind dat het niet mijn verantwoordelijkheid is om deze activiteit uit te voeren
- Met alle andere activiteiten samen is het teveel werk
- Andere reden:

Voor de activiteiten 'maatschappelijk handelen' en 'professioneel handelen' waren de vragen anders.

De KNGF noemt in het beroepsprofiel van fysiotherapeuten 'maatschappelijk handelen' als een van de zeven activiteiten die een fysiotherapeut uitvoert. 'Maatschappelijk handelen' wordt als volgt gedefinieerd: *Een fysiotherapeut oefent op een maatschappelijke verantwoorde wijze zijn beroep uit, waarbij factoren als duurzaamheid, beroepsethiek, juridisch kader en sociaal-culturele context een rol spelen*. **Kunt u van elk van de factoren een voorbeeld geven hoe u dit toepast in uw behandelingen?**

Duurzaamheid

Beroepsethiek

Juridisch kader

Sociaal-culturele context

U heeft net omschreven hoe u 'maatschappelijk handelen' toepast in uw behandelingen. In hoeverre ervaart u deze activiteit als belastend?

- Niet belastend
- Een beetje belastend
- Gemiddeld belastend
- Erg belastend
- Heel erg belastend

Waarom ervaart u deze activiteit als belastend? (Meerdere antwoorden mogelijk)

- Ik heb niet voldoende vaardigheden om deze activiteit uit te voeren
- Ik vind dat het niet mijn verantwoordelijkheid is om deze activiteit uit te voeren
- Met alle andere activiteiten samen is het teveel werk
- Andere reden:

De KNGF noemt in het beroepsprofiel van fysiotherapeuten 'professioneel handelen' als een van de zeven activiteiten die een fysiotherapeut uitvoert. 'Professioneel handelen' wordt als volgt gedefinieerd: *Een fysiotherapeut levert hoogstaande cliëntenzorg op een integere, oprechte en betrokken wijze. Hij neemt verantwoordelijkheid voor zijn handelen en bewaart weloverwogen een balans tussen persoonlijke en professionele rollen. Hij kent de grenzen van zijn competenties en handelt daarbinnen, of schakelt andere deskundigen in. Hij stelt zich toetsbaar en transparant op. Hij onderkent ethische dilemma's, heeft inzicht in ethische normen en houdt zich aan de wetgeving.*

**Kunt u een voorbeeld geven van hoe u dit toepast in uw behandelingen?**

U heeft net omschreven hoe u 'professioneel handelen' toepast in uw behandelingen. In hoeverre ervaart u deze activiteit als belastend?

- Niet belastend
- Een beetje belastend
- Gemiddeld belastend
- Erg belastend
- Heel erg belastend

Waarom ervaart u deze activiteit als belastend? (Meerdere antwoorden mogelijk)

- Ik heb niet voldoende vaardigheden om deze activiteit uit te voeren
- Ik vind dat het niet mijn verantwoordelijkheid is om deze activiteit uit te voeren
- Met alle andere activiteiten samen is het teveel werk
- Andere reden:

Werkt u wel eens over? (betaald of onbetaald)

- Ja
- Nee

Met welke frequentie werkt u over?

- Dagelijks
- Wekelijks
- Maandelijks
- Jaarlijks

Welke activiteiten voert u uit wanneer u overwerkt? (Meerdere antwoorden mogelijk)

- Samenwerken
- Organiseren
- Kennis delen en wetenschap beoefenen
- Behandelen van cliënten
- Administratief werk
- Onderhandelen met verzekeringsmaatschappijen
- Werken in zorgnetwerken

Waarom voert u deze activiteiten uit tijdens overuren?

U heeft net aan te geven (wel eens) over te werken. In hoeverre ervaart u dit overwerken als belastend?

- Niet belastend
- Een beetje belastend
- Gemiddeld belastend
- Erg belastend
- Heel erg belastend



Waarom ervaart u dit overwerken als belastend?

U bent bijna aan het einde gekomen van deze enquête. Ik wil u hartelijk bedanken voor uw hulp! Heeft u na het beantwoorden van deze vragen nog aanvullende informatie die bruikbaar kan zijn in deze context?

Mocht u geïnteresseerd zijn in de resultaten van deze enquête, vul dan hieronder uw e-mailadres in. Zodra het onderzoek is afgerond, zal ik u de resultaten sturen per mail.

## Appendix 3: Parliamentary questions

Screenshot of the news article:

NIEUWS ▾ NIEUWSBRIEF FORUM ▾ ZELFTEST 🔍

# Kamervragen over de noodkreet contracteerronde fysiotherapie

*Is het waar dat de behandelindex niet transparant is, zodat voor de fysiotherapeut niet duidelijk is welke regels de verzekeraar daarbij hanteert?*

12/10/2016

Deel op Facebook
Tweet op Twitter
G+
P

Vragen van de leden Leijten en Van Gerven (beiden SP) aan de minister van Volksgezondheid, Welzijn en Sport over de noodkreet over de nieuwe contracteerronde fysiotherapie. (ingezonden 7 oktober 2016)

1. Wat is uw reactie op de noodkreet van de fysiotherapeut dat het contracteringsproces niet goed verloopt en de fysiotherapeut geen gelijkwaardige positie heeft in de onderhandeling met de zorgverzekeraars? <sup>1)</sup>
2. Wat vindt u ervan dat er in de contractering van fysiotherapie door de zorgverzekeraars in feite alleen nog maar gestuurd wordt op de behandelindex? Vindt u dit de juiste insteek om de volledige inkoop op te baseren?
3. Is het waar dat de behandelindex niet transparant is, zodat voor de fysiotherapeut niet duidelijk is welke regels de verzekeraar daarbij hanteert? Is het waar dat verzekeraars voor de behandelindex verschillende regels, bijvoorbeeld het behandelgemiddelde als indicator voor doelmatigheid, hanteren en deze ook per jaar wisselen? Vindt u niet dat deze regels transparant en eenduidig zouden moeten zijn? Zo ja, wat gaat u doen om dit

**Onze nieuwsbrief ontvangen?**

**Inschrijven**

**Fysiopartners**



De vacaturesite voor fysiotherapeuten

Schrijf je gratis in op de grootste vacaturesite voor de fysiotherapeut.



werk voor zorgprofessionals

Wil je als fysiotherapeut aan de slag in Duitsland of Zwitserland?

deze regels transparant en eenduidig zouden moeten zijn? Zo ja, wat gaat u doen om dit te bewerkstelligen? Zo nee, waarom niet?

4. Wat vindt u er vervolgens van dat fysiotherapeuten hun patiënten eigenlijk moeten dwingen om deel te nemen aan een kwaliteitsonderzoek omdat zij bij te weinig deelnemers vanuit hun praktijk worden gestraft met een tariefskorting en een terugzetting van het contract naar een standaardcontract? Hoeveel zorgverzekeraars stellen dit soort voorwaarden in hun contractering van fysiotherapie?
5. Vindt u het terecht dat fysiotherapeuten gevraagd wordt om de klantervaringen te meten voor de zorgverzekeraars zonder compensatie daarvoor zodat het ten koste gaat van de tijd die aan de patiënt kan worden besteed?
6. Kunt u aangeven of hier sprake is van een inspannings- dan wel resultaatverplichting? Zijn hier verschillen tussen de verzekeraars? Zo ja, welke? Wat is uw oordeel daarover?
7. Kunt u inzicht geven in de benchmark 2016 aan de hand waarvan zorgverzekeraar Achmea de fysiotherapeuten wil afrekenen in 2017? Zo nee, hoe moet men dan de vrijheid interpreteren die zorgverzekeraar Achmea voor zichzelf inbouwt om middenin het contractjaar een overeenkomst te verbreken omdat de benchmark 2016 is overschreden? Zo ja, hoe ziet deze benchmark er precies uit en vindt u de mogelijkheid halverwege het jaar het contract op te zeggen een wenselijke ontwikkeling voor de patiënten die op dat moment onder behandeling zijn bij een bepaalde fysiotherapeut en dus gedwongen worden zelf bij te betalen of halverwege een behandeling over te stappen naar een andere fysiotherapeut?
8. Is er sprake van dat fysiotherapeuten in 2017 van de zorgverzekeraars moeten behandelen onder de kostprijs? Kunt u de tariefontwikkeling schetsen vanaf 2012 tot 2016? Zijn deze prijzen in lijn met de kostenontwikkeling en inflatie? Hoe was de ontwikkeling van de administratieve lasten bij fysiotherapeuten in deze periode?
9. Zou in de fysiotherapie ook niet 'het roer om gaan', met onder andere eerlijkere onderhandelingen tussen zorgverzekeraars en fysiotherapeuten? Zo ja, hoe beoordeelt u dan het feit dat fysiotherapeuten blijkaar wederom een contract voorgelegd krijgen van de zorgverzekeraars waarbij het in de praktijk niet mogelijk is daarover te onderhandelen en zij moeten 'tekenen bij het kruisje'?
10. Zijn er al resultaten te melden van de werkgroep Paramedie van 'het roer gaat om', waarvan u de voortgang zou monitoren? Zijn eventuele resultaten hiervan al zichtbaar bij de contractering voor 2017?
11. Vindt u het toelaatbaar dat zorgverzekeraars gedwongen worden om 'trusted third parties' toegang te geven tot de elektronische patiëntendossiers? Kunt u uw antwoord toelichten?
12. Bent u bekend met stichting Miletus, een samenwerkingsverband van zorgverzekeraars? Klopt het dat deze stichting in opdracht van zorgverzekeraars onderzoek doet naar nieuwe meetinstrumenten bij fysiotherapeuten?
13. Is hier sprake van een dubbelopsituatie en verspilling van publieke middelen aangezien het Koninklijk Nederlands Genootschap voor Fysiotherapie (KNGF) zelf meetinstrumenten heeft ontwikkeld en in een landelijke database gegevens verzamelt?<sup>(2)</sup>
14. Klopt het dat zorgverzekeraars via stichting Miletus patiënten rechtstreeks kunnen benaderen om hen te vragen naar hun ervaringen met een bepaalde fysiotherapeut? Zo ja, hoe komen zorgverzekeraars aan die contactgegevens? Gaan ze daarbij inderdaad gebruikmaken van de huisstijl van de zorgverlener? In hoeverre is de keuze voor deelname aan het onderzoek daadwerkelijk vrijblijvend en welke invloed heeft het besluit om niet aan het onderzoek deel te nemen op het tarief/het contract enzovoorts van de fysiotherapeut? Zo nee, hoe zit het dan precies?
15. Klopt het dat fysiotherapeuten in hun contracten worden verplicht gebruik te maken van bepaalde vragenlijsten, zoals bijvoorbeeld de Patient Related Experience Measure (PREM), zonder dat de fysiotherapeuten weten wat die vragenlijsten inhouden? Wat is het oordeel van de KNGF over deze vragenlijsten?
16. In hoeverre is de Nederlandse Zorgautoriteit (NZa) op de hoogte van de voorwaarden die gesteld worden aan fysiotherapeuten? Gelden deze voorwaarden ook op een vergelijkbare wijze voor andere paramedici of aanbieders van eerstelijnszorg?

<sup>1)</sup> Noodkreet fysiotherapeut onderhands meegestuurd.

<sup>2)</sup> [kngf.nl/vereniging/Programmas+en+projecten/mkib.html](http://kngf.nl/vereniging/Programmas+en+projecten/mkib.html)

## Appendix 4: Mailing Nexus

# NEXUS



## opleidingsinstituut voor de fysiotherapeut

Geachte <<voornaam>>

Voor u ligt de Nexus Nieuwsbrief van Augustus 2016. Na een welverdiende vakantie voor u en ons gaat het leven van alledag weer van start; de scholen starten weer, met hernieuwde frisheid starten we met werken en misschien oriënteert u zich ook op het verbeteren van kennis en kunde. Nexus komt dit najaar met interessante masterclasses; de masterclass scapuladyskinesie en de masterclass liespijn. De nieuwe opbouwcurcus Cafta gaat van start. In deze Nieuwsbrief wordt u hiervan op de hoogte gebracht. De oefening van de maand is de oefening flys. Last but not least de wetenschappelijke update. Deze gaat deze maand over het verschil tussen algemene, veelzijdig doelgerichte en specifieke oefeningen voor mensen die leiden aan lage rugklachten.

veel leesplezier

Het Nexus team

### Onderzoek naar ervaren werkdruk onder fysiotherapeuten

Leonie Klaassen doet onderzoek naar ervaren werkdruk van fysiotherapeuten. Zij is verbonden aan de Radboud Universiteit in Nijmegen. Nexus ondersteunt haar in dit onderzoek. Deelname is vrijblijvend en anoniem. Informatie over haar onderzoek en de bijbehorende vragenlijst is te vinden via deze [link](#).



**Radboud Universiteit**

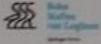
...een master studente aan de Radboud Universiteit  
...om deel te nemen aan mijn enquête. De enquête  
...druk van fysiotherapeuten onderhevig is geweest aan de  
...van de fysiotherapie.

...en het doel is om inzicht te krijgen in welke activiteiten  
...in welke mate zij deze activiteiten als belastend ervaren.

...duurt 10-15 minuten. Wanneer het onderzoek is afgerond en  
...ik die graag met u. Aan het einde van de enquête krijgt u de  
...es in te vullen zodat ik de resultaten naar u kan mailen.

...medewerking.  
...in: leonie.klaassen@hntn.nl

## Appendix 5: FysioActueel


FysioActueel

HOME
NASCHOLING
SPECIALISMEN
(MASTER)OPLEIDINGEN

U bevindt zich hier: Specialismen > Algemene fysiotherapie > Veranderende markt en invloed op de werkdruk van fysiotherapeuten | Enquête masterthesis

### Veranderende markt en invloed op de werkdruk van fysiotherapeuten | Enquête masterthesis



12 september 2016

Heeft de veranderende markt invloed gehad op de werkdruk van fysiotherapeuten? Deze vraag staat centraal in de masterthesis van Leonie Klaassen (Radboud Universiteit Nijmegen). Om antwoord te kunnen geven op deze vraag heeft Leonie uw hulp nodig. Het invullen van de enquête duurt ongeveer 10-15 minuten en de enquête is volledig anoniem.

Namens Leonie Klaassens alvast bedankt voor uw medewerking!

Doe mee met het onderzoek en ga naar de [enquête](#).

Meer artikelen over [Algemene fysiotherapie](#).

(Advertentie)



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Een 28-jarige man komt op het spreekuur en klaagt over linkszijdige liespijn die optreedt bij bepaalde draaibewegingen van de heup. [Klik hier](#) om toegang te krijgen tot het artikel.

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