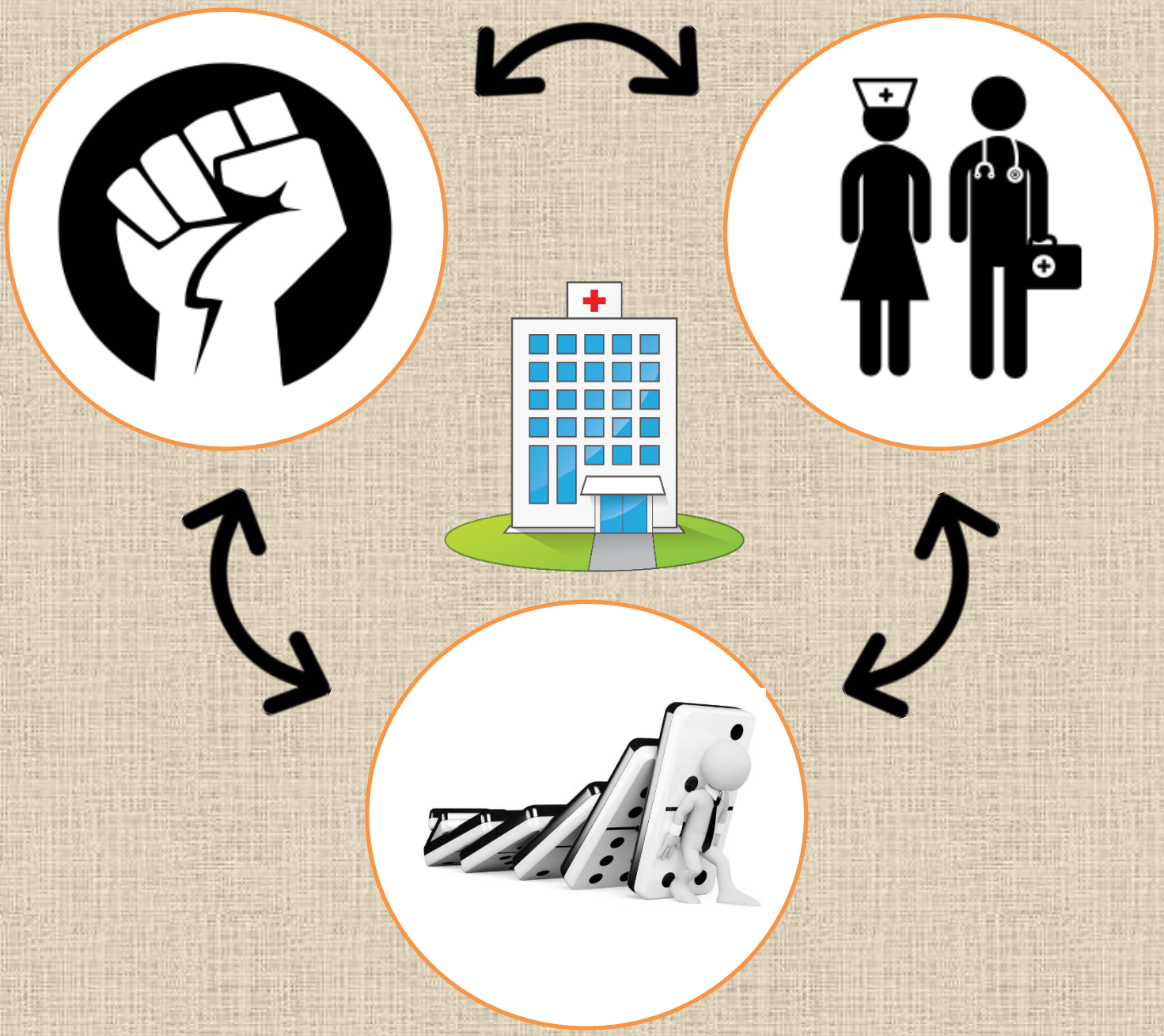
The correlation between actors, power and consequences in relation to increased centralization within healthcare



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Resume

Dette specialeprojekt omhandler, hvordan en øget centralisering inden for sundhedsvæsenet potentielt kan påvirke de praksisser, der eksisterer ude på hospitalsafdelingerne i regionerne.
Projektet tager udgangspunkt i specialeplanlægningen, som er blevet implementeret af Sundhedsstyrelsen på baggrund af et ønske om at sikre en høj faglig kvalitet i sundhedsvæsenet, samt skabe sammenhæng i patientforløb over hele landet. Sundhedsstyrelsen er ansvarlig for implementering af specialeplanlægningen på et nationalt niveau. Det er de fem danske regioner der er ansvarlige for at implementere specialeplanlægningen lokalt i deres respektive regioner, på baggrund af de retningslinjer, der er blevet udstukket af Sundhedsstyrelsen. I dette studie er der fokus på Region Hovedstaden som den region, hvor projektet vil følge implementering processen af Hospitalsplan 2020, som er Region Hovedstaden respons på Specialeplanlægningen. En del af Hospitalsplan 2020 omhandler sammenlægningen af hospitalerne, der er i Region Hovedstaden, der er fusioneret parvis. Bispebjerg Hospital og Frederiksberg Hospital var et af de første hospitaler i Region Hovedstaden som fusionerede. På Bispebjerg & Frederiksberg Hospital blev røntgenafdelingen udvalgt som feltet til det empiriske feltarbejde. Et år før Bispebjerg Hospital og Frederiksberg Hospital fusionerede valgte røntgenafdelingerne at påbegynde deres fusionsprocess, da de vidste det ville tage lang tid at gennemføre, hvilket fandt sted 1. januar 2011. Processen har dermed været længe undervejs, og de forskellige aktører på afdelingen har kunne gøre sig klog på baggrund af deres erfaringer.

Analysen af Specialeplanlægningen vil finde sted på tre niveauer - nationalt, regionalt og lokalt. Analysen af de nationale og regionale niveauer vil blive baseret på nyhedsmedier der dækker emner relateret til Specialeplanlægningen, såsom hvordan regionerne udtaler sig omkring Specialeplanlægningen, og om forskningen understøtter Sundhedsstyrelsens og Region Hovedstadens argumenter for implementering af Specialeplanlægningen. "Øvelse gør mester" er det bagvedliggende argument for implementeringen af Specialeplanlægningen, men er der forskning der understøtter dette?
Analysen af hospitals fusionen på det lokale hospitalsplan vil blive baseret på feltarbejde og interviews med personale fra de forskellige faggrupper til stede på røntgenafdelingen (ledelsen, radiologer, radiografer og sekretærer). Erfaringer og interviews fra mit forrig semesterprojekt vil også indgår, som en del af det empiriske materiale til specialeprojektet, da de to projekter overlapper. Forrig semesterprojekt undersøgte hvordan fusionsprocessen mellem de to

fusionerede røntgenafdelinger påvirkede det sundhedsfaglige personale der arbejder med MR-scanning.

Teoretisk vil der blive anvendt aktør-netværks teori, praksisteori, samt organisations kulturs teori. Grundet de forskellige teorier er for at kunne forklare de forskellige niveauer Specialeplanlægningen finder stedet på.

Metodisk vil det specielt være koncepter som magt og anvendelse af magt, samt konsekvenser og ansvar i relation til magt der anvendes til at besvare problemformuleringen som lyder:

Hvordan påvirker centralisering i relation til Specialeplanlægningen sundhedssektoren på et regionalt niveau, samt de praksisser der eksisterer på hospitaler, mens magt betragtes som et værktøj til implementering af forandringsprocesser.

Konklusionen på dette projekt er, at Sundhedsstyrelsen i kraft sin magtposition baseret på Sundhedsloven tvinger regionerne til at igangsætte deres egne regionale tiltag for at implementere retningslinjerne for Specialeplanlægningen på et regionalt niveau.
Hospitals praksisser er konstitueret af forskellige sundhedsfaglige grupper. Hver sundhedsfaglig gruppe har deres egen funktion på hospitalet, samt deres egne arbejdsgange. Disse forskelligheder skal anerkendes. Grundet ledelses fusionerne, har en kraftig reduktions i ledelseslag fundet sted, som lægger mere pres på de resterende ledere. Det medfører de tilbageblivende ledere skal fokusere mere på organisatoriske opgaver, hvilket skaber en afstand mellem lederne og de sundhedsfaglige grupper. Magt har været en betydelig faktor fra Sundhedsstyrelsens side, da man på de regionale og lokale plan ikke har kunne modsætte sig implementeringen af Specialeplanlægningen, men man i stedet har været nødsaget til at finde på den bedste måde at implementere Specialeplanlægningen på.

Abstract

This Master's Thesis investigates how Danish Health Authority's Speciality planning adds to an increased centralization in Denmark and affects hospital practices. Danish Health Authority was responsible for implementing Speciality Planning at a national level, the Danish Regions responsible for implementing Speciality Planning at their respective region at a regional level, and the hospital departments responsible for implementing Speciality Planning at a local hospital level. During this project Capital Region was selected at the region of interest based on their Hospital Plan 2020, which was developed in response to Danish Health Authority's Speciality Planning. Hospital Plan 2020 caused several hospital to merger in pairs, creating multi-sited hospitals (two hospital, with one management) leading to a reduction in the numbers of management. This change leads to the Medical Imaging Department at Bispebjerg & Frederiksberg Hospital mixing their professionals and distribute them at both department, while implementing a new team structure affecting the work structure of the professionals.

The methodological approach is based on field observations and semi-structured interviews with the relevant professional groups (management, radiologists, radiographers, secretaries). The reason for including all the groups was to collect as many perspectives on the matter as possible. Each group having each own challenges related to this project.

The Master's Thesis applies key concepts from Actor Network Theory (Law, Latour, Callon), Practice Theory (Shove, Watson) and Organizational Theory (Kulvinskiené, Alvesson). Several theoretical theories have been chosen to analyse different perspectives in the project.

The project concluded the Speciality Planning does affect the practice at the medical imaging department in several ways. More studies are however needed to fully understand the extent of Speciality Planning affecting practices at hospitals.

Abbreviations

DHA	Danish Health Authority
BBH	Bispebjerg Hospital
FRH	Frederiksberg Hospital
BFH	Bispebjerg & Frederiksberg Hospital
DSQ	The Danish Society for Quality
CT	Computed Tomography
MRI	Magnetic Resonance Imaging
DR	Direct x-ray imaging, conventional imaging using x-ray of bones
UL	Ultrasound
Professionals	Radiographers and secretaries
Practitioners	Radiologists and doctors at other clinical departments
Sequence	A sequence is the settings of various inputs in order to generate images. Can be used in relation to all the medical imaging modalities
Protocol	A series of sequences in MRI
Task gliding	Tasks used to be carried by a specific profession are now being carried out by another profession
MID	Medical Imaging Department
Imaging modality	categories of medical imaging equipment: CT, MRI, DR, UL
Super-users	Radiographers who have achieved additional competencies related to their primary imaging modality. Usually the responsible for keeping protocol for the specific modality updated

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Even though this was a one person Master's Thesis project, it did not feel like it because of my supervisor. I would like to give thanks to my supervisor Theresa Scavenius, who have supported and helped me by sparring with me on this project. Without her guidance the project would not be the same.

1 Introduction

Previously I collaborated with a fellow student on how a merger between two medical imaging departments from different hospitals. The central issues was how the merger affected the radiographers and radiologists practice (Petersen & Huyhn, 2017). Both professional groups work were constituted by the same imaging technology more or less, but their relation to the technology differs. Because of their different relations and usage of technology and how their work is structured, the radiographers and radiologists experienced different issues. Radiologists had issues regarding standardization since it would reduce their professionalism because their work routines are based on experience to a great extend. The radiographers welcomed standardization since they at the time of the study had different work routines at the two physical work spaces, and radiographers had to work alternately at both places, causing insecurity.

This study will attempt to present how actions at the macro level affect the micro level, where the previous study only focused on the micro level. Implementing organizational changes such as a merger between hospitals affects different professional groups differently but are the administrational workers at state or regional level taking these factors into account when planning to implement these changes?

My own experience from working in health care indicates a top-down management structure which in the end dictates how practice are to be at hospitals. One of the main concepts of this project will be centralization: How highly specialized functions at hospitals are being centralized in order to rationalise the health care sector. This project will try to present how the thought of practices in hospitals are being neglected and how it experienced at the lowest levels in the health care sector.

1.1 Centralization within Danish health care

Health care in Denmark is constituted by several administrational layers. Previous to 2007 the levels were constituted by the state, county and municipalities. During 2007 Denmark implemented changes to the administrational structure and replaced the existing 16 counties with the current 5 regions, also referred to as the Danish Regions. The changes also reduced the number of municipalities from 271 to 98 (Christiansen & Vrangbæk, 2017). This lead to a new public structure, where the danish health sector became constituted by the Danish Health Authority (DHA), the Danish Regions and the hospitals constituting the Danish Regions. It is

important to underline each region is caretaked by a regional council (Danske Regioner, 2012). Each regional is constituted by 41 politicians which include a regional council chairman.

DHA is the highest authority in Denmark. In 2006 a new Health Act became active giving DHA the power and authority to manage speciality planning ('specialeplanen' in danish) (VIVE, 2018). In 2010, DHA implemented the speciality planning. Speciality planning manages which hospitals are allowed to perform various medical speciality functions. The speciality planning takes places at both an national and a regional level. The DHA care takes the speciality plan at the national level and the regional level is handled by the five regions (Ibid.). The objective of speciality planning is to ensure a high quality in health care treatments while maintaining and effective usage of resources (Ibid.).

In 2017 a revised speciality planning was published and implemented changes taking into account the continued development on treatment methods and new technology (Sst.dk, 2017c). The speciality planning is based on values such as high professional quality, a dynamic health care sector and openness and documentation which were drafted by several political parties (Sst.dk, 2017e).

The changes in the administrative structure and the implementation of the speciality planning has resulted in an increased centralization within the health care sector over the years (Lueg & Halkjær, 2017). The health care sector constituted by DHA, Danish Regions, hospitals managements and various professional practitioners at hospitals each have their own political agenda, practice related values and different understandings towards what should be prioritized.

DHA issues general guidelines regarding speciality planning on a national level. At the regional level it became important for the elected politicians to initiate speciality planning complying with the national guidelines (Christiansen & Vrangbæk, 2018). In 2015 Capital Region declared in its 'Hospital Plan 2020' the vision and objectives to be achieved by 2020 (Hospitalsplanen 2020, 2015). One of the areas described in the Hospital Plan 2020 is that the Region Capital will view the hospitals as a single unit. Each hospital will have its own clinical profile and intake area in the region and all the hospitals will have a joint responsibility to supply the citizens with the best possible care and treatment. The Capital region's goal is to improve quality and standardization through a centralization process based on the Speciality plan by DHA. In 2015 the regional council chairmen from Region Zealand and Capital Region argued the DHA had too much power in the health care sector and the centralization had the negative consequence of creating unequal attractive hospitals to work at (Politiken, 2015). Unbalanced distribution of power can have consequences. An example could be that in 2017

politics rather than evidence based science decided the limit and circumstances at which obese patient could have a obesity surgery performed. The reason to raise the BMI at which patients could have surgery from 40 to 50 were based on a economic incentive, and the number of operations declined from 4.300 in 2010 to only 600 in 2016 (Politiken, 2017a).
This study will in relation to the Danish Regions focus on Capital Region primarily since the hospital which act as the empirical data source is located and Capital Region are further implementing centralization through their Hospital Plan 2020.

- The speciality planning was, and is, the primary tool by the DHA to improve health care through increased centralization and began in 2005 with the danish parliament passing on the The Health Act enforcing the strengthening the position of DHA (VIVE, 2018). The Health act became active 1st January 2006. Previous DHA could issue guidelines which the hospitals could follow, but had no obligations to. After the initiation of the Health Act DHA gained a stronger position of power enabling DHA to assign and withdraw licenses to

1.2 Hospital Plan 2020 and multi-sited hospitals

There a five regions in Denmark. Only Capital Region and their take on implementing speciality planning will be included in the project, since it would be too much to include all the regions.
Hospital Plan 2020 is build upon the idea of multi-sited hospitals. Beginning in 2012 the hospitals in Capital Region began a merging process (Regionh, 2015). Previous independent hospitals such as Amager and Hvidovre hospital had their own management at the executive board level and the department levels. These departments were reduced from two managements to a single management in order to reduce duplicates in administration, merged shift functions and economics of scale (Ibid). Those previously working the management would have to apply for the job position in the new joint management. This off course seemed most fair and would also make sure the most qualified got the job.

Amager/Hvidovre hospital and Bispebjerg/Frederiksberg hospital (BFH) merged January 2012. Based on the experience it was estimated 130 million dkk could be rationalized each year from the merger of Glostrup/Rigshospitalet, Herlev/Gentofte hospital and Helsingør/Frederikssund/Hillerød hospital. Even though this was just an prediction, it was

added to the budget. Beside the changes resulted by Hospital Plan 2020, Capital Region (and Region Zealand) implemented a new electronic health record (EHR) called Sundhedsplatformen in 2016 (Regionh, 2018c), which also affected Capital Regions budget heavily (Regionh, 2017a; Regionh, 2017b).

In 2008 Ahgren investigated the emergence of multi-sited hospitals in Sweden (Ahgren, 2008). Sweden had the same conviction regarding creating larger multi-sited hospitals as Capital Region in Denmark - it would "lead to lower average costs and improved clinical outcomes" (ibid. p. 93). Multi-sited hospitals in Sweden or internationally had not been evaluated, and it seems not much research on the topic has been conducted since. This could imply the implementation of multi-sited hospitals is based on a cultural factors or politics rather than evidence based research.

The study showed however the majority (approximately 60%) of the employees perceived the motive behind the merger to be based on rationalisation, while only ≈5% perceived improved clinical competencies and only ≈10% perceived maintaining a high level of quality care as being the motive behind multi-sited hospitals (ibid.).

1.3 Are practices at hospitals being considered?

The Hospital Plan 2020 from Capital Region and the Speciality Plan from DHA argue centralization will improve the professional quality (Regionh, 2015; Sst, 2017a). But are Capital Region and DHA considering how the significant changes in the health care sector will affect the practice of the health care professionals working in hospitals? In none of the documents released from any of the authorities have they mentioned how culture or practices is a factor in improving health care quality.

In 2017 Students at Aalborg University performed a study at Frederiksberg/Bispebjerg Hospital (BFH), investigating the experience of the merger from the perspectives of radiographers, radiologists and the management (Petersen & Huyhn, 2017). The study showed factors such as communication, culture and an understanding of how different professional group practices intertwine in a complex interaction is important. The different professional groups each have their values at stake. Taking the management as an example: The management merger resulted in the leading radiographer from Frederiksberg hospital (FRH) and the leading radiologist from Bispebjerg hospital (BBH) representing the new joint management. The management stated the practices at FRH and BBH always had its differences based on different cultures as well as the physical environment (ibid).

This project is based on a collaboration between myself and BFH. The management, radiologists, radiographers and secretaries have been included as the relevant professional groups. When implementing changes in the health care sector, and investigating how the changes has affected professionals, it is important to include all the professional groups present at the department. Each professional group have different functions, work structures, responsibilities and values and will therefore be affected differently by changes. Exploring and discussing how the professional groups have been affected is important and, from my personal experience in practice, have been neglected by those who implement changes on a higher political level. This project will seek to fill out the gap and bring out the professionals side of the story and how they are affected.

1.4 How is quality defined?

One of the reasonings for the increased centralization and later the implementation of multi-sited hospitals is to improve quality in health care - but how is quality defined? Quality is a term often associated with a positive perspective. What is meant when wanting to improve health care in Denmark? This project takes the definition of quality from The Danish Society for Quality (DSQ). DSQ is an organization constituted by several important actors within health care such as university hospitals, municipalities, regional centers for quality and development etc. (Dansk Selskab for kvalitet i Sundhedssektoren, 2017a). DSHQS have published a handbook which contains definitions and descriptions of general quality concepts, clinical and organizational quality development etc. (Dansk Selskab for kvalitet i Sundhedssektoren, 2017b). DHA and Capital Region mentions several time they want to improve the quality of the health care sector. But what exactly does the concept of '*quality*' imply? According to DSHQS quality is divided into different dimensions (Ibib, p. 14):

- Effective treatment
- Patient safety
- Cost efficiency
- Rights for health
- Patient focus
- Equality

The dimensions of quality are in agreement with the definition of quality by the World Health Organization (WHO) (WHO, 2006 p. 9-10). When comparing quality in health care from studies from other countries it is important quality is understood in the same way. Assuming other countries also uses WHO's definition of quality in health care makes it possible to compare studies globally.

These above stated dimensions of quality will be included in the later sections where quality within health care is a relevant topic for discussion.

1.5 An ensemble of politics, economics and practices

Reading articles regarding mergers it is apparent most studies are based on political and financial perspectives often leading to conclusions which often can be generalized across multiple geographical locations. These studies are based on a quantitative approach. This could pose a risk for a lack of knowledge on how changes to practices act out in public hospitals. Studies investigating how practices function need to based on a qualitative approach in order to describe the values and experiences attached to the employees at hospitals. An issue with qualitative based studies is the lack of being able to generalize the findings, since the data would be situated and complex and performing the same study at another location would lead to other findings. It is however important to perform these qualitative studies in order to be able to perform comparative research and search for trends across geographical locations. Implementing the same changes across different hospitals disregarding the unique characteristics of each hospitals could lead to complications. Each department management is different and may take different approach towards implementing changes at specific changes, but should the implementation strategy be based on the sole experience of the management or on strategies involving knowledge on culture and practices?

This is the reason for this project to be carried out. I have heard colleagues saying the system is to controlled by a top-down structure, and complaints on how difficult it is to communicate issues through the administrative layers caused by bureaucracy.

The public health care sector have been steered through a management structured based on measuring quality by quantitative rather than qualitative evaluations (Wiese, 2016). This form for measuring productivity mainly evaluate the output but not how the increased demands for productivity affects hospital practices.

Hopefully this project will draw attention to the subject.

1.6 Case study at Bispebjerg & Frederiksberg Hospital medical imaging department.

As mentioned the study will be based on the situation at BFH. In 2012 FRH's and BBH's management merged into Bispebjerg & Frederiksberg Hospital. This was the beginning of a complete merger happening in the near future (Regionh, 2015). A new hospital is planned to be build at Bispebjerg Bakke constituting Bispebjerg hospital and Frederiksberg Hospital. Frederiksberg Hospital will close, but until then, only the administrative layers have been planed to merge (Ibid., 2015).

A year prior the medical imaging departments at Bispebjerg Hospital and Frederiksberg Hospital merged. Through a long transition period the professionals began to work at both hospitals. Geographic the hospitals are located about 3,5 km apart placing the hospitals relatively close to each other.

A new team structure as been implemented at BFH changing how to work. The team structure directly influences the radiographers and the secretaries, and indirectly the radiologists. The team structure could be seen as a consequence of speciality planning in Capital Region.

This project will investigate how the increased centralization through speciality planing has affected the practice at the Medical Imaging Department (MID) through the merger process. The results will be based on the situation at BFH but hopefully it will help to understand how changes on a large scale also affects on a smaller scale. Who are the actors in positions of power, how do they exercise their power and what values are important for the actors within the health care sector.

2 Problem formulation

How does centralization based on speciality planning in Danish Health care affect the health care sector on a national and regional level and in practices at hospitals, while considering power as a tool for implementing changes.

2.1 Research questions

- What are the powers behind changes in the health care sector, and how are the changes being implemented benefitting the practices affected?
- How is speciality planning affecting practices at hospitals?
- What is most important - where the employees at hospitals work or how they work?
- What are the values for the various professional groups at a medical imaging department?
- Are all actors within health care equally exposed to consequences of their actions?
- What is quality, and how is the quality of the health care sector being defined?

3. Knowing the field - My own stake in this project

During my master's thesis I continue the collaboration with Bispebjerg/Frederiksberg hospital, which is also where I used to work before taking the master in techno-anthropology. Knowing the department personally helped me gain access to the field, but it also means I have put myself at stake during the project. Performing my fieldwork within the field, I might end up working after graduating, puts me in a situation where I need to consider how I act, the impression I leave behind and how I present my findings afterwards.

It also means I have to be aware of myself being biased before entering the field, since I have already been socially cultivated during my time as a radiographer. Being aware does not

remove my bias, but it enables me to better differ between my previous position as a radiographer and my present position as a techno-anthropologist.

Another bias I am dispositioned to is my attitude towards the administrative levels in the health care sector. As a radiographer we value certain things such as flexibility within practice and being in a position were we are able to deliver the best possible patient care which goes against the political demands for how many examinations to be perform. My disposition is based on my experience from practices. I am also aware the health care sector is not with unlimited resources and part of a political dispute based on differences in prioritization (education, health care, technology development, infrastructure etc.).
During the analysis and discussion I will remain objective, but my previous experience from the field will most likely still affect the framing of the project .

4. Actors and power

Performing a study which examines the health care sector at both the macro and micro level requires theoretical approaches suitable for the topic. Actor-Network theory (ANT) will be used to describe and analyze networks at the macro- and the micro level and how ANT views power relations. Which actor are in play in the health care sector, and through which actions can the some actors implement changes through power from their network.
Practice theory is inspired by Shove et al. who takes upon the ideas of Reckwitz and Schatzki among others to describe what a practice is. Shove et al.'s model of practice will be expanded on, including power as a part of practice alongside competencies, meaning and materials.
Organizational culture will also briefly be introduced since it describes some of the mechanisms which establishes or/and reinforces culture. Hospitals mergers can be viewed as different cultures colliding which needs to be taken into consideration.

The Danish Health care system is constituted by several adminstrational levels (Christiansen & Vrangbæk, 2017). The ministry of health is the responsible for the political agenda regarding health care, and is constituted by several boards (Sundheds- og Ældreministeriet, 2016a).

DHA is one of the boards constituting the ministry of health, and is the highest authorial power in relation to danish health policies and act on a national and regional level (Ibid.). Next is the five danish regions, which each have responsibility for governing their own region. The hospital managements answer to the danish regions and the hospital management is leading the hospital employees constituted by the various professional groups (nurses, doctors, physiotherapists etc.).

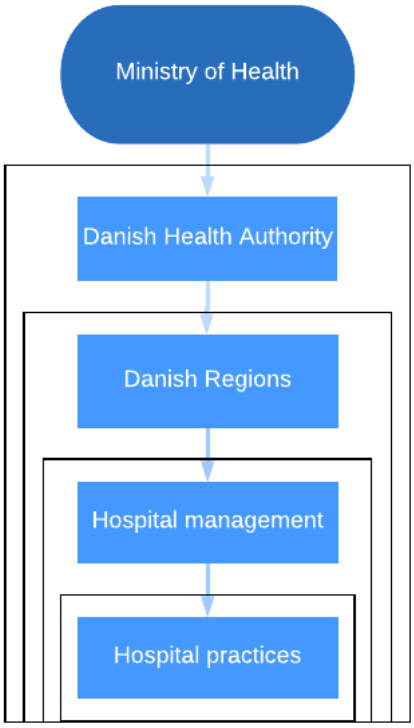

Figure 1. Hierarchy within Health care

In 2015 two regional council chairmen (Capital Region & Region Zealand) publicly stated the DHA had too much power (Politiken, 2015). The questions to ask is how DHA and other actors possesses power which will be elaborated by how power is being perceived by different theoretical contributors. Power will be one of the central theoretical concepts and play an important role in how an increased centralization is being acted out in public health care.

4.1 Analyzing power and values through actor-network theory

Actor-Network Theory (ANT) is a widely used theory when working with several different actors and their relation to power. Throughout this project ANT will be based upon concepts from John Law, Bruno Latour and Michel Callon. The concepts will cover power through a network, the model of translation, punctualization, durability and mobility. ANT will be used to describe the position of power actors are in and they achieved that position of power.

Within ANT power is an essential concept, though different key person within the field have different approaches towards the meaning of power. According to Latour power cannot be held by people. An actor in itself can not exercise power or affect others. Power is instead something exercised through others. (Law, 1992). Power is making others take action, in relation to your needs. DHA can implement and govern speciality planning because the Danish Parliament agreed on it, and made it durable by publishing it in a Health Act (VIVE, 2018). It can be examined by looking at the network, why an actor holds a position of power. Law sees ANT

as concerning itself with the *mechanisms of power* (Law, 1992). This refers to looking at the interactions between actors and identifying interactions which leads to stabilization and reproduction of networks. The model of translation is a method on how to analyse changes caused by actors within a network (Law, 1986). According to the model of translation, it is about analyzing how different actors shape processes to fit their values. It can be perceived as looking as how actors react when "given the ball". DHA implement speciality planning on a national level. Afterwards each of the regions in Denmark "grabs the ball" and initiate regional speciality planning suiting the values of the respective regions.

When hospitals are subject to changes such as merging hospital managements, each management will shape the changes accordingly to their own ideas or visions. The more layers an implementation goes through, the more actors are involved and the implementation are therefore subject to a greater deal of alteration compared to the initial idea.

The DHA in itself does not have power as stated earlier. They do however in their network have actors (human-actors) and actants (non-human actors) to act through. The employees at hospitals can be considered a network consolidation through *punctualization* meaning they are viewed as one actor in a network (Callon, 1990). Actors constituting networks who are performing tasks can be simplified and consolidated through *punctualization*, meaning the actors constituting the network are replaced with the action which is being performed. Radiographers produces medical images, radiologists analyzes the medical images or employees in general at hospital could be said to provide patient care. Punctualization simplifies processes in that each individual within the group being consolidate is not to be accounted for, but rather their profession as an example.

In accordance with Law, identifying the interactions between DHA, Danish Regions and other actors are necessary to explain the ongoing centralization and also the objects mediating the interactions (Law, 1992). A majority of the communication between the actors today seems to be through the media. With a network with so many individual actors, it is difficult to reach out to everyone but how does the communication through the media affect the network? Law introduces *durability* and *mobility* of actants through translation (Ibid). Translation is object being translated into other objects. A conversation can be made durable by recording it, or writing it down. A conversation is only words, which disappears after they are said. Letters on the contrary remains (as long as it is not destroyed). Writing down agreements also increases their mobility. Letters can be send over distances and be read at another time in the future.

The communication happening on the different administrative levels are being translated to increase mobility in order to interact with other actors in the network. Whether it is through a

agreements or discussions are being documented on DHA homepage or the news on the internet. New news appear every hour of the day and new information are being brought forth, while documents published on DHA's homepage stays valid for a longer period of time.

Implementing changes in large organizations such as the health care sector leads to a need on investigating *programs* and *anti-programs* (Latour, 1990). Programs can be seen as the actions taken for the centralization to become implemented, while anti-programs are the resistance against the centralization. Centralization is intended to increase the quality of care in the health care sector (program) but also leads to workplaces with fever highly specialized functions creating less attractive workplaces for the health professionals (anti-program). A countermeasure against an anti-program is a anti-anti-program. In this case it would be to eliminate the imbalance of attractiveness between workplaces. Identifying these programs and anti-programs is needed in order to investigate the chain of translations, since a translation often is caused by a need to overcome an anti-program in the first place.

4.2 Power within practices

Practice at hospital is an essential theme in this project. Primarily with Shove's model of practice, which is based on the ideas of Reckwitz and Schatzki. The central elements of practice are meaning, competencies and materials, which are constituting the model of practice. I would like to add another element - power - to the elements constituting the model of practice. The idea of power in practice is inspired from Watson's theory on how power is manifested in practice.

Practice theory has several contributions to how practices could be perceived. Reckwitz views practices as a routinized type of behaviour. Practices as a block or pattern, consists of interdependencies between elements such as forms of mental activities, forms of bodily activities, "things" and their use, understanding through having background knowledge and know-how (Reckwitz, 2002). These concepts are used to describe the actions in practices and the knowledge required to be part of that same practice. Understanding practices requires one to "always apprehending material configurations (Schatzki et al, 2001 p. 3). Materials and resources are part of practices in hospitals, but one must also have the knowledge to properly use the materials as well. How do nurses measure a patient's temperature correctly for example? Different technologies can measure temperature. But which technology is being used

in practice, what competencies are required to use the technology and do the meaning applied to the technology make it more reliable than other similar technologies.
Certain linked element are essential in practice. These elements are *competence*, *material* and *meaning* (Shove et al., 2012).

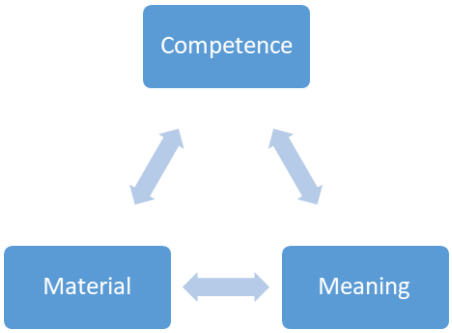

Figure 2. Model of Practice

- Materials: "*...including things, technologies, tangible physical entities and the stuff of which objects are made*"
- Competence: "*... incompasses skill, know-how, and technique*"
- Meaning: "*...symbolic meanings, ideas and aspirations*"

The model of practice is used by Showe to analyze whether a practice have been established, the configuration of the practice and what is required to prevent a practice from dissolving.

This study is not interested in how practices are established and re-stabilized over time but rather the constituting element (materials, competence, meaning) and how between different practices constituting a larger practice. The larger practice (department practice) is constituted by several different practices. These practices are the practices of the different professions present at the department. The professional's practices relevant for this project are radiologists, radiographers and secretaries. These professional groups are present at the MID, which is the department this project is based on. In order to describe how these practices interact and affect each other 'power' as an element will be included in the model of practice.

Shove has not included 'power' as an element in the model for practice, to which Watson states "*Practice theory must be able to account for power*" (Watson, 2016 p. 1) Watson was one of contributors for *The Dynamics of Social Practice*. This project adds power as an essential element into the model for practice.

Power is only meaningful through human actions or interactions, but powerful social agents such as legislative institutes (e.g. DHA, Danish Regions) or governments are able to act from positions of power "*...if power is seen as capacity to act with effect"* (Watson, 2016 p. 2). Through this interpretation power can be can be used to direct or influence actions of others.
Watson introduces power as an effect through performance of practice instead of power being external to practice. DHA and Danish Regions do therefore not have any power if they do not interaction with other actors. During interactions actors can exercise their power through rules defined as "*explicit formulations, principles, precepts and instructions that enjoin, direct or remonstrate people to perform specific actions"* (Schatzki, 2002 p. 79). DHA publicly exercise their power through their speciality planning and Danish Regions through their Hospital Plan 2020, enjoining the practices at the hospitals.
Practices, based on the model of practice by Shove, is situated in a situated workplace - no workplace being the same and having the same practices. In order to describe how an increased centralization affects practice, implementing 'power' as an element in the model of practice is necessary.
In my opinion stating power within practices is limited to only perceiving how others actions are directed og influence is insufficient. Inspired by Flyvbjerg (Flyvbjerg, 2004), I adding *consequences* and *responsibility* to the concept of power related to practice. Those performing an action - directly or through others - needs to be held responsible and face the consequences for that action whether the consequences are positive or negative. Being able to escape facing retribution for the consequences of their actions. A management at a hospital can not spend money without limit and not face the consequences which could be, to be fired.

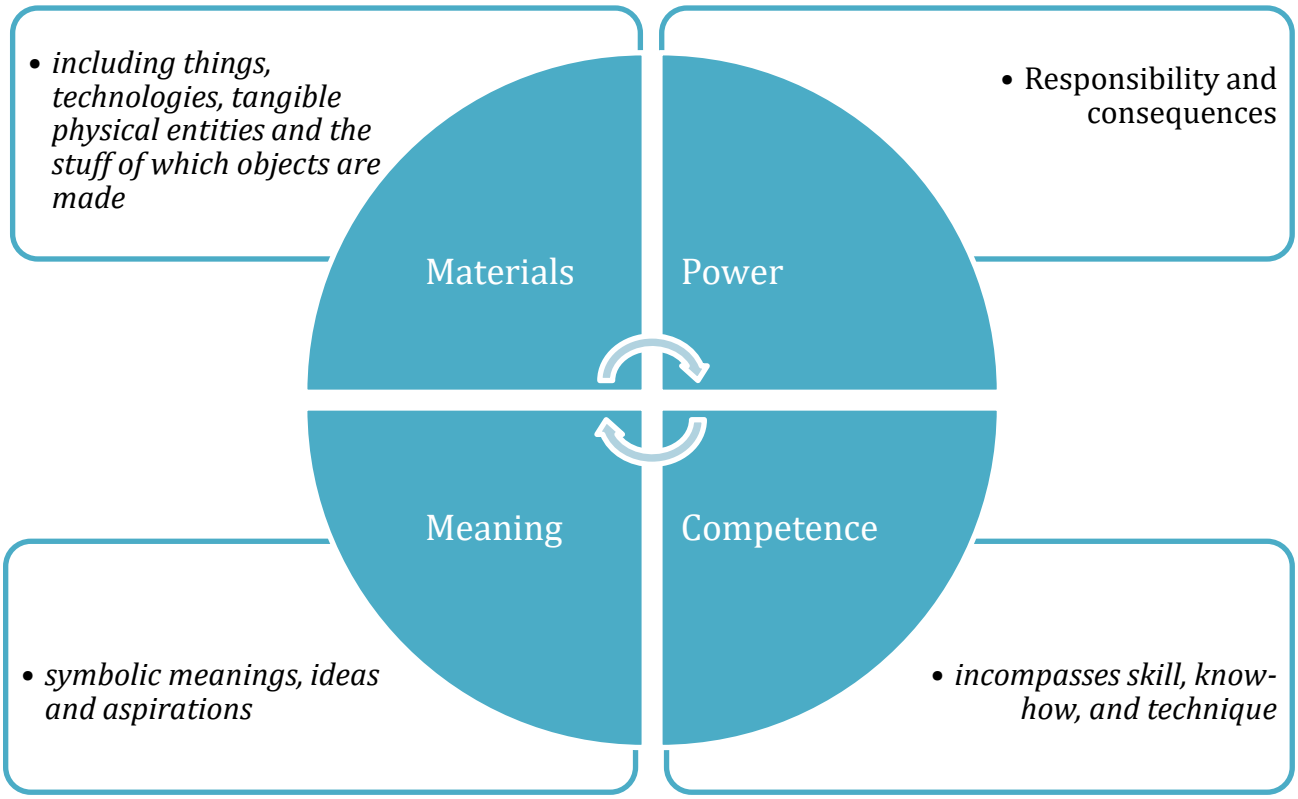

Figure 3. Altered model for practice

Having responsibility should also add to the position of power of an actor. Being responsible for performing certain tasks within a practice puts the one responsible in a greater position of power based on their indispensability. You could call it leverage, but it about making yourself valuable for the practice. On the other hand, when tasks are removed from a professions practice they are placed in a lesser powerful position. I have add the the element of power, reconfiguring the model for practice. The purpose of the structure of the altered model for practice is to underline the elements materials, power, meaning and competence are all constituting practice from a holistic perspective. Each element cannot be seen individually but must be set in relation to the other elements.

4.3 Organizational culture related to an organization's success

Another thing separating different departments from each other beside their different practices, is their cultures. But “culture has no fixed meaning even in anthropology” (Alvesson, 2002 p. 3). This project will draw on organizational culture by Kulvinskiené et al. and the primary and secondary culture mechanisms related to organizational culture. Also Alvesson’s idea of how

meanings applied to objects and symbolic value defines culture are drawn upon. Kulvinskiené et al. will be applied in the context of the meeting between two departments' cultures. Alvesson's definition on culture (meaning and symbolic value) will be used in a more general approach toward culture.

Organizational culture is an important subject describing the relationship between management, practices and employees (Kulvinskienė et al., 2009). Organizational culture is most essential to a company's success. Based on the stability of the organization different *mechanisms* helps to either stabilize or reinforce an organizational culture. The *primary mechanisms* involve among other mechanisms the reaction to critical incidents by leaders, the criteria by which leaders retire, recruit or promote organizations members while the secondary mechanisms involve the organizations rituals and rites, physical design of work space and the stories and legends about people and events within the organizations.

Primary establishment of culture mechanisms	***Secondary expression and reinforcement of culture mechanisms***
1. What leaders pay attention to, measure, and control	1. Organization design and structure
2. How leaders react to critical incidents	2. Organizational systems and procedures
3. Observed criteria by which leaders allocate scarce resources	3. Organizational rites and rituals
4. Deliberate role modeling, teaching, and coaching	4. Design of physical space, facades, and buildings
5. Observed criteria by which leaders allocate rewards and status	5. Stories, legends, and myths about people and events
6. Observed criteria by which leaders recruit, select, promote, retire, and excommunicate organization members	6. Formal statements of organizational philosophy, values, and creed

Table 1. Mechanisms embedding beliefs and values for leaders (Kulvinskienė et al., 2009, p. 29)

During a merger, the cultures from the merged actors will collide. During interviews, the informants claimed the merged departments had different cultures making the merger process troublesome.

Primary and secondary mechanisms differ by how one is describing the establishment of a culture in a new organization (primary), while the other looks at the mechanisms which reinforces an already established culture (Secondary) (ibid.).

This project sees culture as a concept constituting *symbols* and *meanings*. Symbols is defined as objects - both material and immaterial - such as words or statements, which stands ambiguously for something else. Meanings are applied to the symbols (Alvesson, 2002). Different professions may mention the same technology (acting as the symbol), with both professions applying different meanings to it. When including several different professional groups as well as managements is it important to describe which meanings those different groups apply to the same objects (Ibid.). Merged departments have different meanings attached to specific actions or uttered sentences. Medical imaging examinations can be performed in several ways, not one way being the correct way. This leads to different departments saying the same thing explicitly but the meaning attached may differ.

5. Methodology

This section will introduce the methodological and ethical considerations and approaches. Phronetic planning research will explain the methodological framing, while participatory observations and semi-structured interviews will be the sources for the empirical material from the micro field. The macro field have not been accessible and will be based through news articles and discussions in the media.

5.1 Phronetic Planning Research

Phronetic planning research works on the issues of how mechanisms of power acts out, who the mechanisms of power affects, and if the development happening in a specific scenario, such as the health care sector (Flyvbjerg, 2004). The project will be based on specific examples on how centralization have been, and is being realized in health care from news articles and the media. How is power being exerted and by whom, and what is the consequences for these actions (Ibid.).

Instrumental rationality and value-rationality are also being investigated - what are the consideration related to the tools/mechanisms/instruments used to implement speciality planning. And are the purposes for the speciality planning agreed upon by the involved actors? Balancing these two rationalities are crucial for any social organizations regarding viability (ibid.). Considering the ethical circumstances in relation to the speciality planning is important. The ethical considerations would include transparency, and being aware of who might be suffering from speciality planning.

5.2 Ethical considerations

Ethics are considered primarily through the empirical data collecting in the field. The ethical considerations are based on *anonymity*, *consent* and *confidentiality* (Sanjari et al., 2014).
At the beginning of the interviews each informant where informed they were recorded, which alias they are mentioned in the study. Names will be anonymised and informant will be mentioned by their profession or as management and which hospital they are working at. The reasoning for mentioning the specific hospital is for others to see this study in a context and because this specific merger is unique based on its approach.
Informants were given the opportunity to decline answering questions, they did not want to answer.

5.3 empirical data

This study is a following up on the findings from the previous semester project I conducted with a fellow student. The empirical data from the previous study will be included in this study and there will be made a difference when referring to empirical data from this study and the previous study.

5.3.1 From previous semester

The previous study investigated how the merger at a medical imaging department affected health care practitioners working with magnetic resonance imaging (MRI). The experience and empirical data will be relied on in this project too. The project (Petersen & Huyhn, 2017) is placed in the reference section. The interviews from the semester project will be place in the Appendix.

5.3.2 Participant observations at the medical imaging departments

Participant observations were also conducted in order to experience practice in situ and performed at both Frederiksberg and Bispebjerg Hospital. The participatory observations were partly observations and partly conversations with employees who had something on their mind they wanted to express. The later part were to a large extend based on my previous relation with them as coworkers and had therefore already established a basis for trust between us (Spradley, 1980). During the various encounters with employees some directed my attention towards specific problematics they experienced during practice causing frustrations.

During the observations i undertook the role as *moderate observator*, switching between being an outsider and an insider (ibid.). Being an insider gave me the opportunity to move freely within the field, while being an outsider during interactions with employees.

5.3.3 Semi-structured Interviews

Interviews were chosen as one of the methods of collection empirical data. During an interview the informant had set time aside in order to answer the questions for the study. The reason for the semi-structured interview was to have the opportunity to talk about the things important which were important for the informant. For this study the following groups were interviewed at the medical imaging department at Frederiksberg/Bispebjerg Hospital:

- Management
- Radiologists
- Radiographers
- Secretaries

These groups is constituting the core of the medical imaging department and have therefore all been included. They all have different parts to play at the department and each have different functions, values, responsibilities, work structure and approaches to health care technologies. The changes implemented in the health care sector are therefore affecting the professional groups different and it is important to distinguish between these differences and instead of assuming professional groups are affected equally.

The time reserved for the interviews were between 15 and 30 minutes depending on how much time the informant could leave their work station. This was to ensure they participated on their terms and they could stop the interview if an emergency required their attention.
The order of which the interviews were conducted were random. Before conducting any of the interviews interview guides were written. If any relevant information were discovered during an interview and it would be relevant to include it in a interview with another upcoming informant it would be added to the relevant interview guide. This development is making the order of the interviews relevant since information from ‘informant A’ could be used to ask another questions for ‘informant B’, while it was not the case the other way around. Of the manager asked once why I asked some specific questions since they were case related to the department, I answered i deducted the question based on an answer from a previous interview.

During the interviews I had already skipped the *apprehension* with the informants since they already knew me, and we already had established a mutual trust. This enabled me to conduct the interviews more efficient than a stranger would have been able to (Spradley, 1979)

The themes for the interviews are as following:

- Who is the employees closest manager
- Communication between management and employee and how can it be optimized
- Time set aside for research and protocol optimization during the day
- Is department management able to be part of practice if needed
- Attitude towards the new team structure at the department
- What is important for the person being interviewed

It should also be noted the empirical data from interviews are based on personal perspectives. If I had asked another radiographer or radiologists for example, I would have received another answer to my question. Unfortunately I could not include all the employees at the MID.

The interview guides will be included in the Appendix.

6.3.3.1 transcription of interviews

All of the interviews are transcribed from audio to text. When performing the transcription it is important to be aware of the contrast between written language and spoken language (Kvale & Brinkmann, 2015). A large part of the empirical material is based interviews. Translating the spoken language to the written language certain measure are being applied. During the transcription process repeated words, filler words and unimportant pauses in sentences are left out in order to make the transcription easier to read (ibid.). If I or the informant refers to another individual indirectly it will be stated who is being referred inside parenthesis.

5.4 Selecting the empirical field included in this project

Performing the perfect study on centralization in Danish Health care would include looking at how all of the five regions are implementing speciality planning in their respective region. It would also require to look at all the departments at all the hospitals in order to be able to make a comparative study. A Master's Thesis is however not without a time limit, and I have

therefore chosen to focus on Capital Region, and how they implement speciality planning. Bispebjerg & Frederiksberg Hospital's medical imaging department will be the field in which I will gather empirical data to be able to analyze and discuss how increased specialization planning has affected hospital practices. The findings of the project will not be conclusive in a definitive sense, but could be the project starting researching on the topic.

5.5 Data in the analysis and discussion section

During the analysis and discussion section the different actors will be viewed from different sources. The DHA and Capital Region analysis will primarily be based on documents they have published and on the news articles available online. The department management and the practitioners analysis will be based on field observations, semi-structured interviews and from my own experience working in the field. This project covers the health sectors on the administrational and practitioner level and performing field observations and conduction interviews with all the involved actors is not possible within the timeframe for this project.

6. Centralization, power and practices

This section will be used to analyse and discuss how speciality planning is used as a tool by DHA and Capital Region to increase the centralization. The interviews conducted will also be examined and analyzed.

DHA are responsible for health care on a national level and Capital Region have responsibility for their own region. Being actors in position of power related to health care, their power is based on their network and the responsibilities granted to them. They are able to implement speciality planning to increase centralization but what are the consequences? The professional groups present at Bispebjerg & Frederiksberg Medical Imaging Department have been interviewed related to how their practices have been affected by the department merger as a consequence of speciality planning. What are the issues to be aware of when performing a department merger. How does work routines get affected and how are the professionals competencies challenged?

First subsection (6.1) will analyse how actors such as DHA and Capital Region exercise power within health care based on their actor network and power through responsibilities. For example, what is the relationship between DHA and the Capital Region and how does their relationship affect how centralization is being implemented in Capital Region. Who do the

DHA as well as Capital Region have as advisors and how do their advisors influence their decisions.
Implementations from the DHA is being implemented by the department management and the practitioners at a local level. Following the perspective from the model of translation, which changes do the department managers and practitioners implement based on DHA and Capital Region's speciality planning?. In relation to Latour, who constitutes the programs and anti-programs and how does it show i practice?

Interviews have been conducted with the management, radiologists, radiographers and secretaries at Bispebjerg & Frederiksberg Hospital. Through section 6.1.3 to 6.1.4 the groups will be analyzed on the interviews and quotes will be used to underline their perspective on the merger process and how they have been affected by it regarding their work routines and competencies.

Subsection 6.2 will analyse and discuss what the literature says regarding centralization. How does DHA's statements on improved health care through centralization compare to the science. Increased centralization is to be viewed as tool by DHA in order to achieve improved health care. What are the gains and losses based on published research and cases discussed throughout the news. Is there a critique on centralization in healthcare and what is this critique based on.

As a consequence of speciality planning Capital Region implemented the Hospital Plan 2020 (Regionh, 2015). Hospital Plan 2020 plan will be be discussed and analyzed on the arguments for merging hospitals and having multi-sited hospitals (6.3). What are the pros and cons for the healthcare system and what does the literature say regarding the professionals and practitioners attitude towards hospital merger? Based on centralization, multi-sited hospital structure seems as a natural development for Capital Region to achieve hospitals with highly specialized functions. Is scientific research sufficient to support the arguments for multi-sited hospitals or is more research needed in order to be aware of the consequences for implementing a multi-sited hospital structure.

A case based on empirical data from the medical imaging department at Frederiksberg and Bispebjerg Hospital will analyse what is important for practitioners and the department management (section 9). The empirical data is constituted by observations and interviews performed for this project, observations, interviews and findings from the previous semester

project (Petersen & Huyhn, 2017**)**. Frederiksberg and Bispebjerg Hospital was included in the project based on their actions towards mixing employees from both hospitals and having them work at Frederiksberg hospital and Bispebjerg hospital based on an alternating structure. Frederiksberg and Bispebjerg Hospital was the first hospital to merge not only management, but also employees in Capital Region and are therefore of interest regarding how these mergers can affect practices. The model of practices, constituted by power, meaning, materials and competence will be used in this part of the analysis.

The central point from the previous subsections will be brought together to be discussed. Who are the important actors, what are their values and reasons for action. How do the translation process throughout the health sector at the different levels act out. How is an increased centralization in Denmark and the implementation of multi-sited hospitals in Capital Region related, and how does it affect practice based on a case study from a multi-sited medical imaging department in Capital Region.

6.1 Actor's power within health care in relation to centralization

The primary actors for this project is the DHA, Capital Region, and the medical imaging department management and its practitioners.
A model showing the actors central for this projects perspective on the increased centralization in Denmark, and specifically Capital Region, is introduced. This model will attempt to illustrate which values are important for the actors and what reasons they have for performing actions.

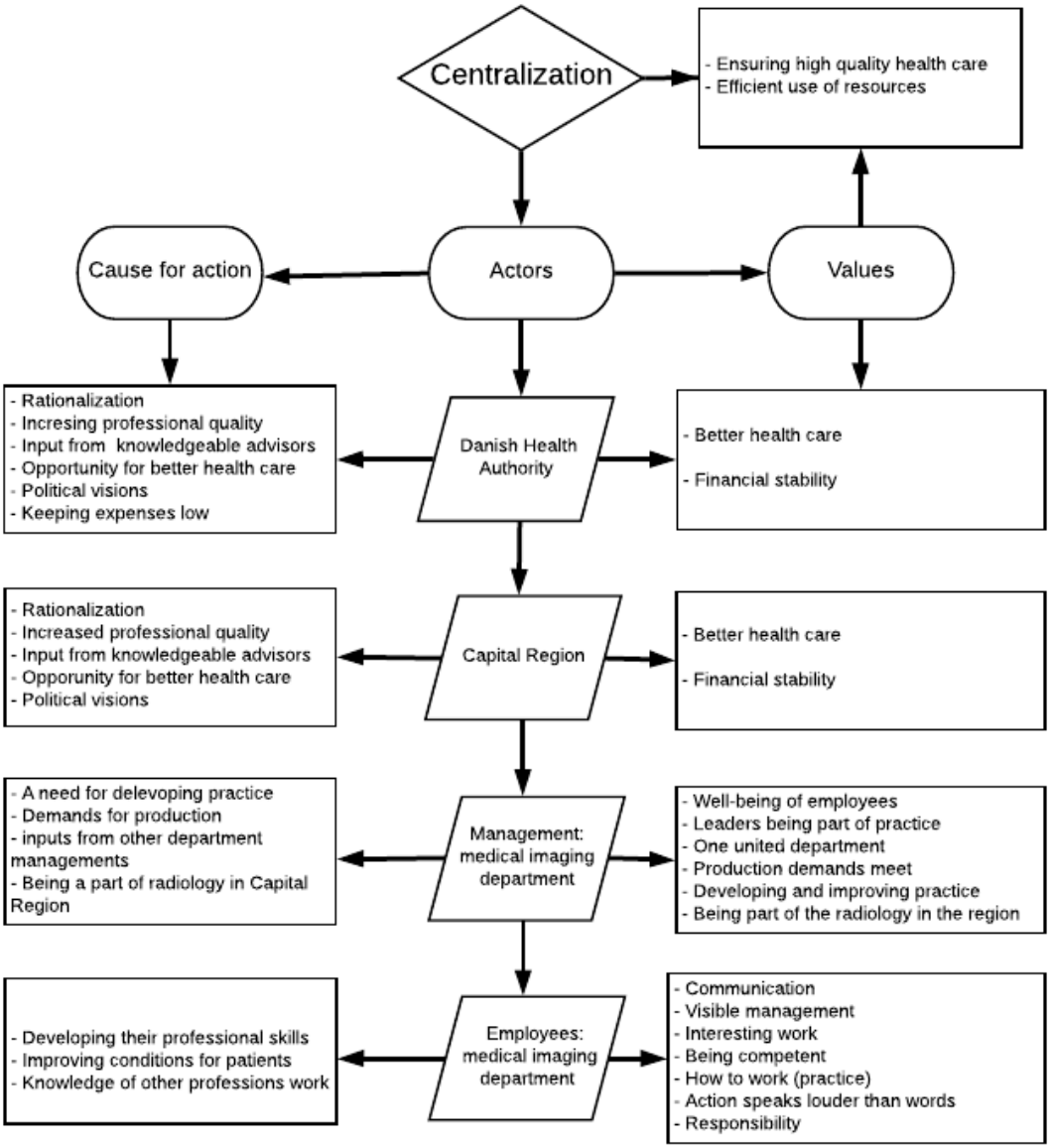

Figure 4 - Model of Health care Actors, their values and causes for action

Figure 4 shows the different actors related to this project. The actors have been punctualized, since they are each constituted by several individual actors. Each punctualized actor have their own values and causes for action acting as motivational factors. Each actor will be explained, discussed and analysed separately in order to clearly defining them. They will be analysed based on the actors values and their cause for action and how the relationship between these indicators is realised in practice. Centralization is positioned at the top. This is

to show centralization is the central concept for this model and the reference point for the actors values.

At the beginning of each section concerned with the actors related to this project, figure 4 will be shown. However, only the actors (and their values and cause for action) relevant for the specific section will be shown. The other actors data will have been remove. This is in order to highlight and introduce the relevant actor, and the related values and cause for action.

6.1.1 The Danish Health Authority's values and power

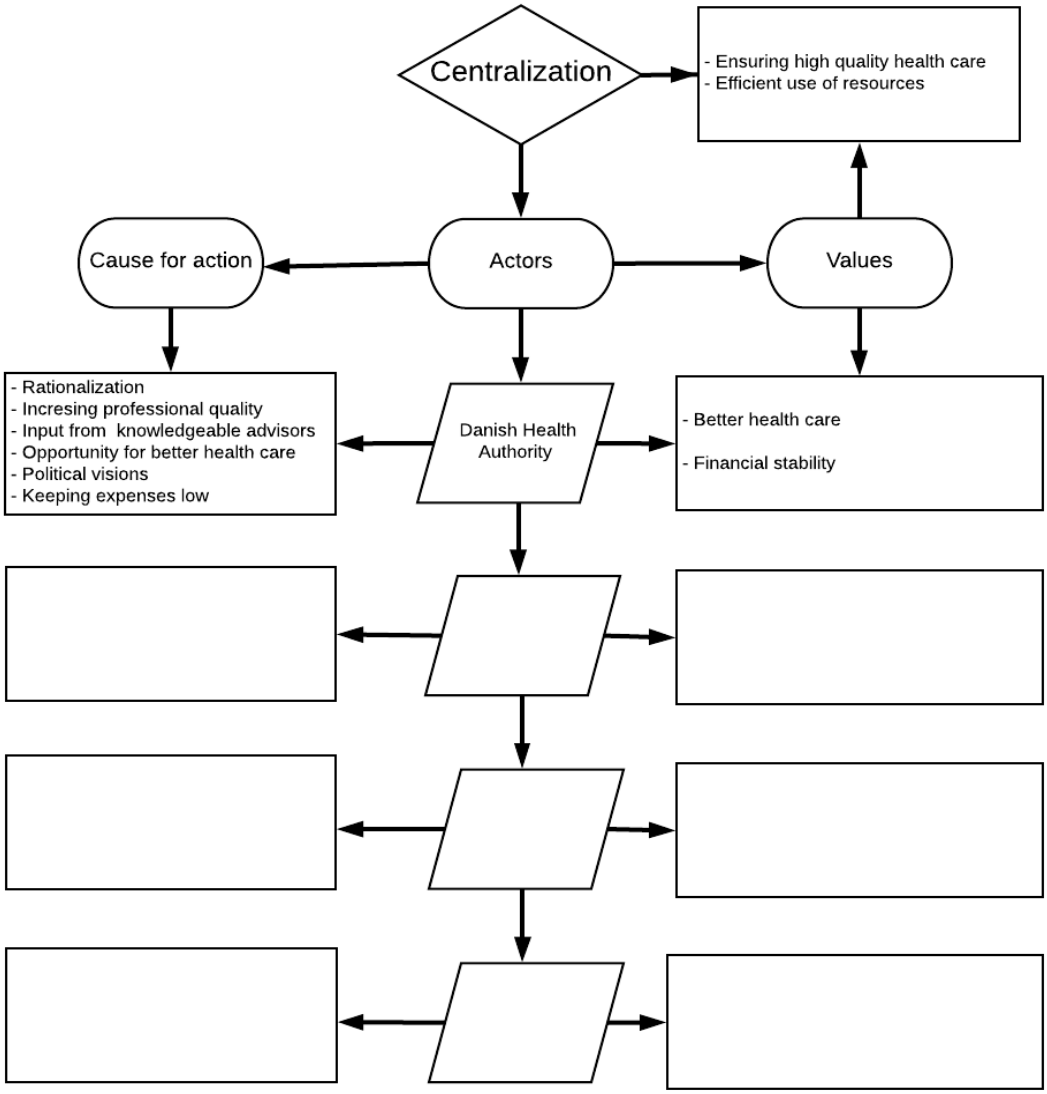

Figure 5 - Model of Danish Health Authority, their values and causes for action

The Danish Health Authority (DHA) is the highest authority within the health care system in Denmark (SUM, 2016a). The DHA states their values as being ambitious, smart, brave, cooperative and present (SST, 2017d). These refers to their cooperation with other actors (professional environments, the regions, communcipalities, private actors etc.) in order to develop smart solutions in order to meet their ambitious plans for the health care sector. The main object is off course to ensure high quality health care for patients in Denmark.
The speciality planning was, and is, the primary tool by the DHA to improve health care through increased centralization and began in 2005 with the danish parliament passing on the The Health Act enforcing the strengthening the position of DHA (VIVE, 2018). The Health act became active 1st January 2006. Previous DHA could issue guidelines which the hospitals could follow, but had no obligations to. After the initiation of the Health Act DHA gained a stronger position of power enabling DHA to assign and withdraw licenses perform specialized medical functions - essentially deciding where the professionals are able to work if they want to work within a specific field of expertise. DHA is the highest

Case - DHA power related to speciality planning

The DHA states to be political independent in order to ensure a high medical authority by being free of the political actions taking place at the Danish Parliament (SST, 2017b). A case presented in 2017 through a news article was published regarding new guidelines for obesity surgery (Politiken, 2017a). This article point towards the DHA being influenced by political agendas at worst, and it shows the regions being suspicious of the DHA being influenced by politics at best.
Medical experts in the field of obesity stated obese persons with an BMI over 40 without other sequelae would benefit greatly from having these operations. In 2010, 4300 patients were operated for obesity at the cost of 250 million DKK based on guidelines in accordance with the experts statement. This extensive expense lead the the previous government to change the guidelines, increase the limit for obesity surgery. Patients had to have a BMI at 50 instead of a BMI of 40 resulting in only 600 patients having surgery and therefore reducing expenses drastically (Ibid.).
In June 2016 the experts finished up new guidelines, which had to be produced in collaboration with the DHA. At the same time the state signed a financial agreement with the

Danish Regions. DHA was not included in the financial agreement and was afraid the number of obesity surgeries would explode as it had before.
Based on standard procedures a final draft for new guidelines are always to be internal approved by the DHA. Through the final internal approval the DHA had changed the drafted guidelines undermining the experts statement. Scared by previous experiences the new guidelines stating regarding obesity surgery "*should not lead to increases in costs of the regions"* (Ibid.). This need for a final internal approval within the DHA could indicate the guidelines are drafted through the collaboration of the DHA and the experts, but the DHA is the actor who have the last say in such matter. In general the public sector have been financial struggling (Regeringen, 2012 p. 13). The DHA has responsibility for health care in Denmark. They are however also responsible for maintaining a healthy economy. This puts the DHA in a position where they have to be aware of the cost-benefits on new implementations, such as the new guidelines on obesity surgery. One of the experts who worked on the drafting of the guidelines stated he was satisfied with the new guidelines but the number of patients in need of obesity surgery are still greater than the number of patients being referred (Dagens Medicin, 2017).

The experts criticised the DHA for being influenced by the political system. The state and the danish regions had closed their new financial agreement. No being included lead DHA to fear if obesity surgeries increasing as well as the costs provided for the surgeries. The criticism was rejected by the DHA. It did however come to a power struggle on power and values. The DHA wanting to keep expenses at the current level (in accordance with the political system on the matter), while the expert wanted to be able to offer surgery to obese patient who would benefit from the surgery. The experts are taking on the role of an antiprogram, towards the changes introduced in the final internal approval on the guidelines. This is shown in practice, when the experts refused to put their name on the new guidelines edited by the DHA. The experts used their position of power, gained through the trust of the danish population. The solution to this antiprogram was to present a new suggestion for the guidelines. This case also show than even though the DHA are the highest authority within health care they need the support of expert in order to make the guidelines legit to the public. The DHA's professional credibility is based on their collaboration and approval of medical experts. This is support by a study on Danes increasing uncertainty on health (Mandag Morgen, 2017). The study concluded professionals and practitioners were rated higher than authorities such as the DHA regarding credibility and

as sources of knowledge. This supports the reason for the DHA for having medical professional as knowledgeable advisors.
The new guidelines which were announced May 2017 outlined the criteria for obese patients to have surgery to be based on a practitioners assessment instead of a patient's BMI (Sundheds- og Ældreministeriet, 2016b). The final guidelines introduced by the DHA are still meant to avoid an unexpected an increase in the number of obesity surgeries regarding both health and financial issues (Ibid.).

DHA and their appointed advisors

In order to provide the necessary level of health care DHA is collaborating with 12 appointed expert advisers. Each of these expert advisers are to monitor the development in each of their given areas of expertise, provide council in single issue cases and help prepare new health legislations (SST, 2017c). The expert advisors, at the present time, is constituted by doctors and a single chief midwife. One may wonder why nurses, radiographers, physiotherapists or another health professional group is not included? Only getting the perspective from practitioners could lead to a partial view on how practices are in hospitals. There are also indicators for practitioners being seen as the more important professional group in hospitals (Politiken, 2017b). From my own experience in practice a lot of the duties and tasks doctors used to caretake are shifting over to other professional groups. The shifting of work tasks unloads doctors while supplying the other professional groups with kompetences and knowledge. Hopefully this development can shift the cultural perspective on viewing doctors´at the most important professional group at hospitals which have been part of hospital practice for a long period of time. In order to optimize health care quality DHA could involve other practitioners than doctors. This could potentially benefit health care greatly which is also one of the values of the DHA.

Increasing health care quality through speciality planning

One of the initiatives by the DHA to increase the professional quality within health care was to implement speciality planning. In 2006 the DHA were given authority through the health legislation in Denmark to control the speciality planning and the speciality planning was implemented in 2010.

The speciality planning were implemented on the basis of increase the quality of health care while being aware of getting a more efficient resource utilization (Sundheds- og Ældreministeriet, 2016c). The essential thought behind the speciality planning is *practice makes perfect* which supports the vision for higher professional care. Through the implementation of the speciality planning the DHA is realising their own values regarding better health care. The speciality planning will be further analysed and discussed in section 6.2.

The above cases emphasizes the DHA's values which essentially is better health care for the same or less money. In accordance to the concept of quality by DSQ, DHA refers to the dimensions of effective treatment and cost efficiency directly through the cases previous presented and through the implementation of the speciality planning. Patient safety is part of the effective treatment dimension since a treatment would not be effective if a patient got hurt or died during the treatment. The qualities regarding equality, equal possibilities for all, is on the other hand a quality DHA support, but it is suppressed by the speciality planning. Having specific medical specialities at very few hospitals also means some patients will have a long way from home to the hospital performing the specialized function (Politiken, 2015). This shows improving one type of quality might worsen another type of quality. Lastly DHA is at all time balancing financial distribution and how health care services should be prioritized, since DHA is subject to budgets set by the Ministry of Finance. DHA has to ensure a high level of health care is being performed while having to satisfy the needs and demands from interests such as the different regions in Denmark and financial institutes, specialized functions and its patient group. Professionals all want to give the best treatment to their patients, but resources and budgets are not unlimited and prioritization is a necessity.

6.1.2 Capital Region - implementing centralization and multi-sited hospitals

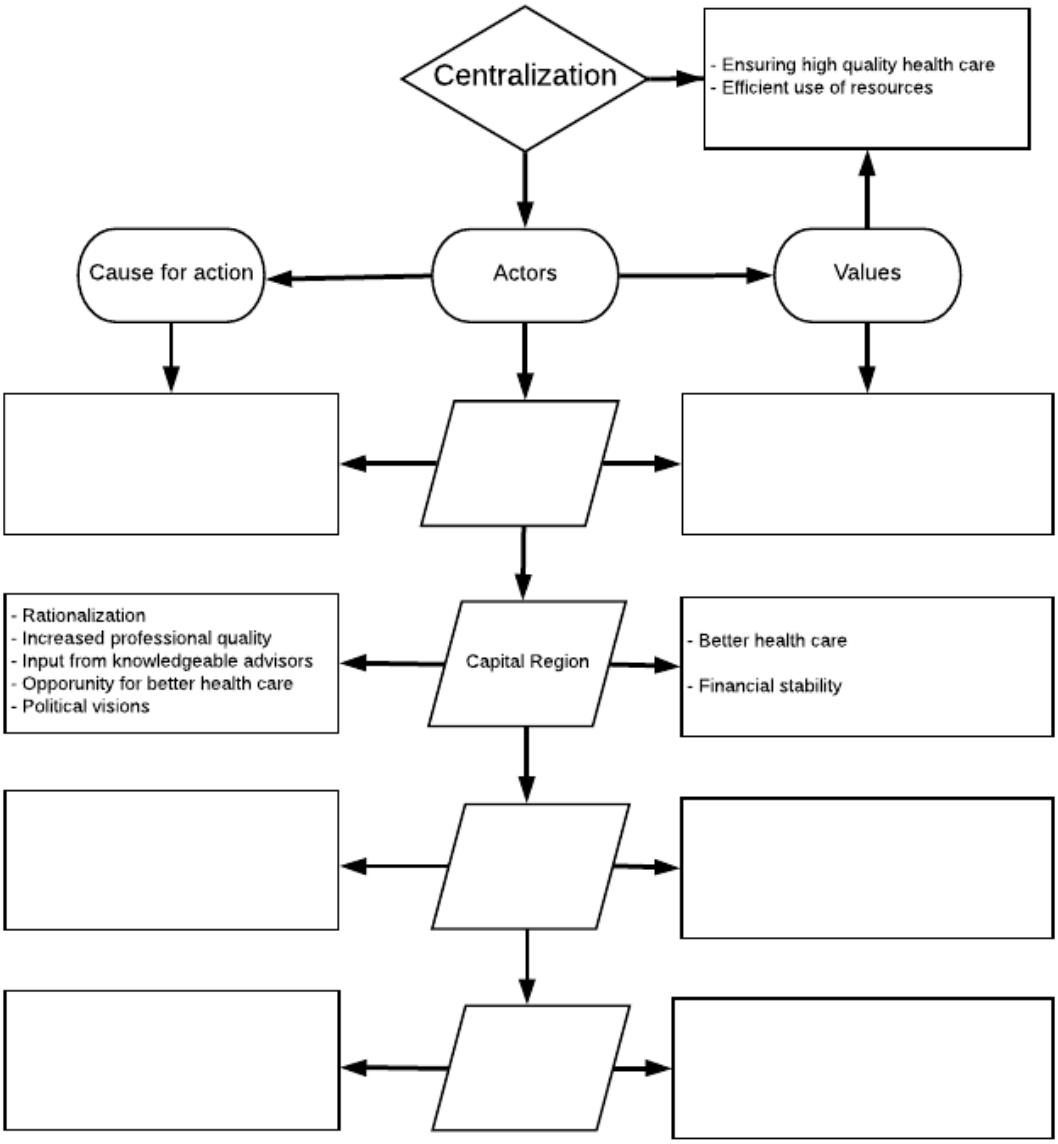

Figure 6 - Model of Capital Region, their values and causes for action

The values by Capital Region is based on better health care and having a stabile economy, staying within the limits of the budget.

The Capital Region is the region located at the eastern part of Zealand, and has the most dense population of the 5 regions .

Region	Indbyggere	Areal per km²	Indbyggere per km²
Hovedstaden	1.702.388	2.561	665
Sjælland	819.071	7.273	113
Syddanmark	1.200.858	12.191	99
Midtjylland	1.262.115	13.142	96
Nordjylland	579.787	7.931	73
I alt	5.564.219	43.098	129

Table 2. Danish Regions population density (Danske Regioner, 2012 p. 4)

Region Zealand is the region with the second most dense population, but the density in Capital Region was over 6 times greater than Region Zealand in 2011. This can be based on the numbers from 2012 and the difference between the regions have undoubtedly grown.
Just as DHA, Capital Region have their own values listed on their home page on the internet (Regionh, 2017c):

- Professionalism
- Robustness
- Propriety
- Visionary

The underlining values are however the same at DHA's values – providing better health care while maintaining a healthy economy.
In order to be able to change anything an actor must be in a position of power. Some of the regions have been critical towards the DHA and criticised DHA for having too much power. An article were published in 2015 concerning the implementation of the speciality planning.
Two of regional council chairmen criticised the DHA for having too much power (Politiken, 2015). The chairmen stated it should be the public elected politicians who should decide on how best to manage the public health care sector instead of government officials. The cause of the criticism was the implementation of the speciality planning. The speciality plan determines how the regions hospital is structured based on which hospitals are allowed to have specific medical specialities. This case suggest a top-down management in the health care sector to

which the regions are dissatisfied with (Ibid). The cause for DHA position of power related to speciality planning is the Health Act stating DHA is the highest authority related to speciality planning.

Capital Region implementing Hospital Plan 2020: Multi-sited hospitals

In 2015 Capital Region published their Hospital Plan 2020 with the intention to increase the centralization process (Hospitalsplanen 2020, 2015). The idea behind Hospital Plan 2020 is to reshape the hospital structure within Capital Region based on quality, safety and financial efficiency.

The development of Hospital Plan 2020 is based on the principles of the Speciality Planning by the DHA (Ibid., p. 77). By implementing Hospital Plan 2020 Capital Region supports the idea of *practice makes perfect* through an increased centralization. Capital Region developed Hospital Plan 2020 in order to implement the changes demanded by DHA. Capital Region may seem to be the ones in power being the one who implement Hospital Plan 2020 - it is however still DHA who decides which hospitals are allowed to perform specialized functions.

Another important impact of Hospital Plan 2020, beside increased centralization, is the introduction of multi-sited hospitals in Capital Region. Previously each hospitals and its departments had its own executive board and management. By introducing multi-sited hospitals hospitals in Capital Region is paired together (Frederiksberg & Bispebjerg, Glostrup and Rigshospitalet, Herlev & Gentofte, Hvidovre & Amager and Hillerød, Frederikssund & Helsingør hospitals) (Ibid., p. 36-49). The exception is Bornholms hospital. Bornholm hospital is located at a small island in the Southeastern part of Denmark and is remaining as it were from a administrational level based on its special geographical conditions.

Implementing multi-sited hospitals indicates a need for rationalization (Regeringen, 2012). The financial pressure has lead to a need for rationalization which is being met by reducing the number of duplicate hospitals administrations. Reducing the number of hospital administrations is not without consequences. Each executive board and department management will have a larger number of practitioners to lead. The alternative approach towards making rationalization is by dismissing professionals and practitioners. Resources are scarce and Capita Region's choice on reducing the numbers of professionals at hospitals or reducing in the management layers. Not dismissing professionals or practitioners, Capital Region shows they do not want to reduce the number of warm hands at the hospitals (Hospital Plan, 2015 p. 65).

Organizational culture not consideret?

Organization culture is also to be recognized as an very important factor regarding an organization's level of success - especially in the case of multi-sited hospitals (Kulvinskienė et al., 2009). Culture is not mentioned directly in either Speciality Planning or Hospital Plan 2020. Being aware of the mechanisms which establishes or reinforces organizational culture is important. Being unaware could lead to a management performing poorly since management decision making may have a bigger impact on the organizational culture than the management attaches to it. This topic will be discussed later in section 6.3.

Capital Region's expert advisors - The Health Care Councils

Just as the DHA has 12 expert advisors, Capital Region has its own advisors. Capital Region has a health care council for each of the medical specialities in the region (Regionh, 2018a). Taking the field of radiology as an example, the Health Care Council of Radiology is constituted by leading managements from each hospital in Capital Region and some professors (Regionh, 2018b). The members of council purpose is to discuss changes decided by DHA which are to be implemented and what consequences these changes may have. Capital Region's vision for the public hospitals is to see the hospitals as a single unit. The councils therefore need to discuss how changes in practice affects the hospitals and the possible obstacles for the implementation.

> *"We are to have new patient treatments or other things, we as the healthcare council objects or approve. If we can implement it we take it up in the council and estimates if there is a problem or not. Then we delivers feedback on the topic…"* BFH-L1 l. 211-215

The existence of the health care councils enables the DHA and Capital Region to get feedback from the hospitals. In comparison to the expert advisors for the DHA, the Health Care Councils is constituted by the professional groups relevant for the specific medical field and not just doctors. This brings a broader understanding for practice into play and ensures the interests of al the professional groups are being considered.

6.1.3 Medical imaging department management values

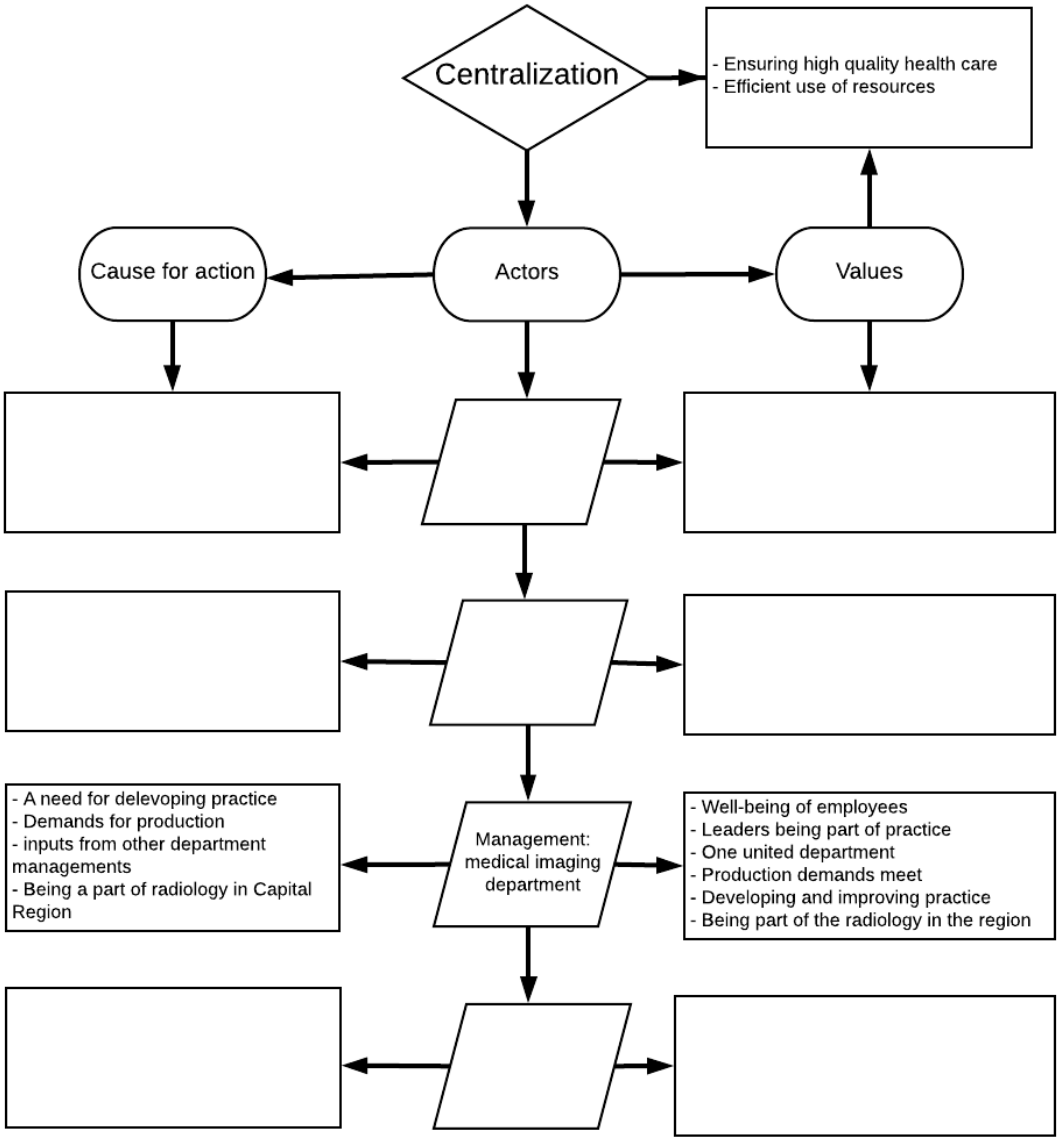

Figure 7 - Model of Management, their values and causes for action

The department management at the medical imaging department is constituted by two layers of management. The leading management, and the department managemen. The leading management is the management is responsible for departments finances and are the ones in contact with the executive board at the hospital. The department management is constituted by three radiographers in management positions - each being responsible for their own team of radiographers as illustrated in figure 8 below. The leading management and the department management will be analyzed separately.

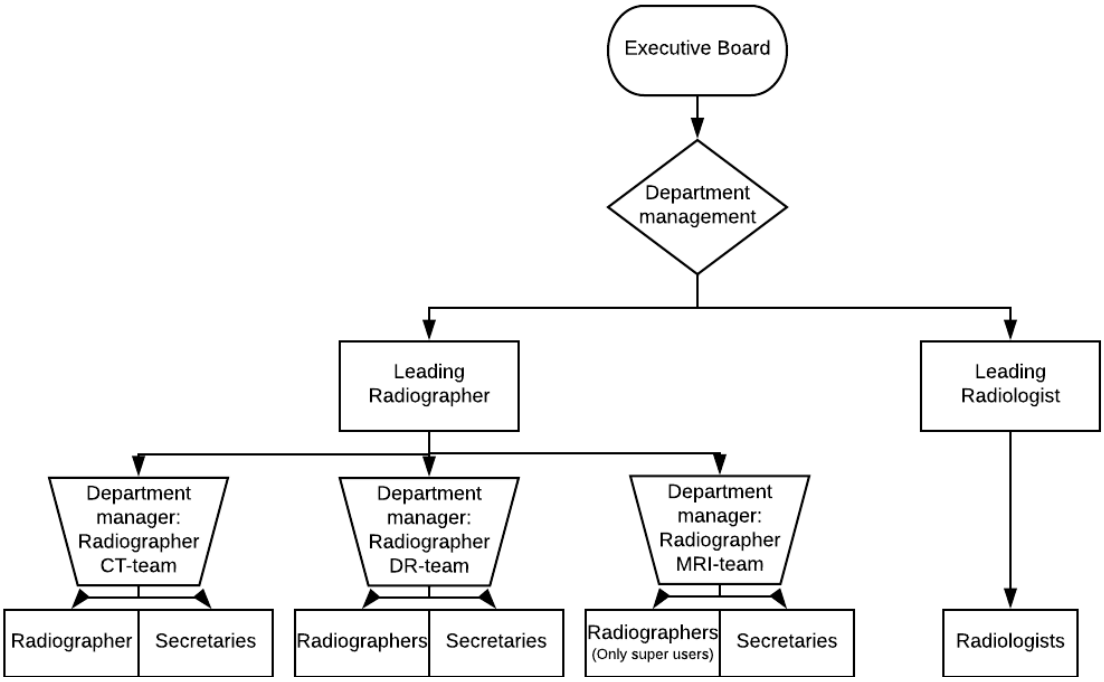

Figure 8. Medical imaging department's management structure

6.1.3.1 The leading management, their position of power and their values

The leading management position of power might not be as great one might be thinkin and several factors affects this. The department management is subject to budgets from higher administrative levels, implement changes decided by DHA or Capital Region and are make sure the employees wellbeing and interests are bare handled to ensure the employees wont leave for another workplace with more favorable conditions.

Power through budget handling

The leading management have the power to restructure the employee structure by changing how the employees are budgeted. If more radiographers are needed more than doctors, or the other way around it can be budgeted.

> "*... how many department managers you have or not is not written in stone, so it is possible the change the employee budgeting between the professional groups, if there is a need, but we need to justify it. If you need to move some of the budget for doctors to the budget for radiographers it can be done…"* BFH-L4 l. 26-29

The department does not just have a single budget. One budget accounting for the demanded activity and another budget accounting for employee budgeting. This puts the leading management in a position where they have to compare the resources available and the number of employees to meet the demands for production.

> "*Bispebjerg is controlled by how many employees the department is budgeted... and you also have a budget, and you need to compare those two, even though there should be enough money for employees' salaries. But everytime a budget comes in a demand for activity follows, so you need to compare the activity with the salaries and also how many employees is budgeted."* BFH-L4 l. 17-21

Services on two fronts - executive board and employees

The leading management is in a tight spot having group of people above and below in the system who need to be taken into consideration during changes in practice. This could impose a difficult situation on the leading management if executive boards and the employees have opposite interests. Is the leading management to favor their employer or their employee?
The position of leading management is the position who communicates with the executive board on behalf of the department. If the leading management are in a situation where their employer and their employees are having opposite interests it is the leading managers responsibility to find a solution or come up with a compromise.

> *"With MRI, last summer, we tried to MRI scan all our patients instead having them MRI scanned externally, which meant we had MRI scanners working in the evening. I could understand it was too stressful for the radiographers so I told the executive board we could not do it any longer. We can only handle a single MRI scanner, there are too many evening shifts and it is too much. So we try to balance things out, we take the fight (with the executive board) and in this case we won. But we got the executive board to understand our situation. You are in the middle at all times"* BFH-L4 l. 277-283

If certain changes which are planned to be implemented, but are not realistic, the leading management will discuss with the executive board on what the alternatives are, or if the change to be implemented is not possible at all. The leading management acts as the executive boards ears and eyes at the department, informing the executive board on what is going on.

> *"I have been put into this world to discuss with the executive board, and tell them what is going on at the department."* BFH-L4 l. 241-242

The leading management have all the responsibility and is in a different position of power than the department management. The leading management, on paper, have responsibility for what is happening at the department.

> *"...we have the final responsibility. We have financial responsibility and a responsibility for making sure the department delivers its services. But we cannot have the responsibility without asking others"* BFH-L1 l. 380-382

Distributing power to the department managers

The leading management has the option of distributing responsibility onto other actors in the department. This is seen by letting the department managers have responsibility for the radiographers. The leading management is still acting as an advisor instead of decision maker when needed, as the leading management sees it as being part of being in the leading management.

> *"I think that I have the responsibility for what is happening, but you can also just be an advisor from time to time, that is also part of the job"* BFH-L4 l. 95-96

As seen in figure 8, the leading management is constituted by a leading radiographer and a leading radiologist. They each have a different structure and dispositions for they structure the employees from their respectively professions. The leading radiographers primarily handles budgets, project initiating and communication outside of the department with the execute board and within the Health Care Council of Radiology among other actors.

> *"...my role is to be an initiator, the one who is financially responsible, responsible for having the required personnel and ensuring proper working conditions"* BFH-L2

The task of managing the radiographers have been handed over to the 3 department managers. Managing the radiographers required the department managers to take on responsibilities for the radiographers. Gaining responsibility also give the department managers a position of

power regarding the department. The department managers position, their challenges and their values will be analyzed and discussed in section 6.1.3.2 and 9.

> *"We have said they (department managers) must handle issues themselves on the tasks which they think they can handle. But if they need to take something up higher in the system, they will come and talk with me"* BFH-L4 l. 84-85

The distribution of responsibility to the department managers is based on the need to do. Having over 100 radiographers employed at Bispebjerg & Frederiksberg Hospital makes the department managers a necessity. The leading management leads through the department managers in order to make sure it does not turn into chaos.

> *"It is apparent, when are to lead I lead the radiographers, but I have to do it through the department managers, else it will turn into ragnarok. So we have an understanding of the department managers to take responsibility for their areas on a daily basis"* BFH-L4 l. 238-241

Making the merged departments feel as 'one department'

Other important issues for the leading management is for the two departments to feel as one as well as the well being of the people employed at the department. An plausible obstacle the leading management meet at first with the merger process what a lack of knowledge by the professionals of why the merger happened in the first place. Why did the merger take place, and what consequences did it have for the professionals. A merger between departments could imply an employee would have to work at the other department, or travel between the departments or something else. This insecurity leads to a resistance towards change because the outcome and consequences were unclear.

> *"I think the resistance mostly was about a lack of knowledge, not knowing what is means when told that we are working together. What do the management think, and then give them an concrete example"* BFH-L1 l. 140-142

The merger affecting the wellbeing of the professionals and practitioners

The merger process also affected the well being of the professionals. The conclusion is based on a large investigation of the professionals well being, which is highly prioritized by the leading management and is something they work hard on improving. It is however a difficult task since the reason for the conclusion on the investigation is the merger itself.

> *"... the professionals well being have fallen the last year but is slowly coming back up. But we work hard to improve it… I think it has something to do with the some who are feeling affected by the merger, while others think it is the right thing to do"* BFH-L4 l. 105-107, 110-111.

Develop your profession or lose it

One of the initiatives to raise the well being of the professionals are to include them (primarily the radiographers) more in research. The medical imaging department have established a position for a *research radiographer*, who are responsible for the research being conducted related to the practice of radiographers. The leading management had budgeted two research radiographers for the department but chose to change the budgeting to only having one research radiographer. The budget for the other research radiographer were distributed among the other radiographers in practice, enabling the radiographers to join research project from start to finish. The benefits of this configuration is a higher well being among radiographers since those who wants to do research can, while it improves the competencies of said radiographer.

> *"We have hired a research radiographer for the first time, after negotiating with the executive board in order to finance it. We want to support the research being done and that is why we have change the budget from having two research radiographers to having only one, and distribute the budget from the other research radiographer among the rest of the radiographers. This means you can join project, an entire project, from start to finish and so they can do it during the working hours"* BFH-L4 l. 71-77

This also emphasizes the leading management's position of power. Research is happening at the department, but the leading management can through changes to the budget decide how research is being conducted. Including a larger number of professionals to participate in research may potentially benefit the department greater than having two research radiographers. Improving competencies of the professionals while allowing those who want to

participate in research to do so. The medical imaging department also recently hired a professor in radiology. Hiring a professor commits the depart to conduct research. It also gives access to the network of researcher partners in the professor's network. Hiring a professor therefore proves valuable for a department who wishes to be part of research and development.

> *"... we have hired a professor to legalize research since we are committed and required to perform research… we have hired a professor to perform research and he cannot perform research without making room for the people helping him."* BFH-L1 l. 382-386

It can be stated hiring a professor also benefits those professionals who want to do research since a professor need help conducting the research.

A lot of the work medical secretaries performed were removed from their profession resulting in 1 out of 5 to be dismissed through the region (Version2, 2016). Recently a new Electronic Health Record (EHR) system was implemented in the Capital Region (Regionh. 2018c). As a consequence of implementing the EHR system, medical secretaries have been greatly affected. The leading management fears the same will happen if radiographers do not follow the development within the health care sector and grab the opportunities for extra tasks and expanding their profession. Worst case scenario will be radiographers ending up as the medical secretaries and become redundant.

> *"I have heard the radiographers say they are not the ones to do the reconstructions at the scanners. It is the doctors job. That makes me so mad because I think is a job for radiographers and need to hang onto it. Else we will become redundant as the medical secretaries did. So we need to develop our profession as much as possible"* BFH-L4 l. 322-326

This shows a passion from leading management to sustain and develop their professions, and is a force supporting the development of the professions.

The departments of radiology as one unit in Capital Region

Being part of the Health Care Council of Radiology includes having a broader perspective on the role of radiology in Capital Region. The leading management have the opportunity to discuss issues experienced from changes implemented in the region or at a specific hospital.

This broader perspective has lead the leading management to understand the radiology in Capital Region is to be seen not as multiple departments but as a single department having been spread out.

> *"It is very important that we see ourselves as: we are the radiology in Capital Region, we are not just Frederiksberg & Bispebjerg Hospital… we must not forget we are a small part of the radiology in Capital Region and to evolve by collaborating with the other departments, by considering what we do with the patients in order to ensure consistency… And it is very important, especially for the leading management, to know what happens around us ,what others do and adapt. Else we are becoming an island, we don't want to be an island, we want to be connected to the mainland"* BFH-L1 l. 195-204

Summarizing the key values for the leading management

- Being able to manage the budget.
- Balancing the needs from the executive board and the professionals/practitioners
- Prioritizing the well being of the professionals at the department
- Performing research at the department and including the professionals in it.
- Developing the professions through task gliding
- Being part of the radiology in Capital region

The values will be compared and discussed in relation to the other actors values in section 10. Which values the different actors agree or disagree upon what the reasons are.

6.1.3.2 the department management

The department management are responsible for the radiographers and the secretaries, and the leading radiologists is responsible for the radiologists at Bispebjerg & Frederiksberg Hospital. This section will primarily be analyzing the leading managers role and thoughts about themselves and the radiographers and secretaries.

An important factor for department managers, which aligns with leading management, is wanting Bispebjerg and Frederiksberg medical imaging department to be as one. Certain factors works again the departments being as one. When asked one of the department managers responded obstructing factors primarily being the patients groups examined at medical imaging departments, the different cultures and the physical surroundings.

"Off course there is the patients. Then there is the culture. We have two different cultures, which cannot just be changed. So we do not have the same culture. And then we have the physical environment" BFH-L3 l. 158-161

The environmental factors related practice

Bispebjerg hospitals patient intake is constituted mostly by acute patients and hospitalized patients. This causes a large variation in the number of patients being examined, opposed to only having scheduled patients. This could be referred to as external factor on work practice. The internal factors factor on work practice includes organizational culture and the physical environment. Organizational culture are the mechanisms which establish and reinforces cultures. The environment refers to to tasks such as where to get materials used during examinations (contrast media, venflons etc). Also, where are the doctors sitting, which doctor know what and where is the nearest toilet in case a patient is in need. This will be elaborated and discussed later on in section 9.

Introducing the team structure at BFH

The department managers have split the radiographers into 3 teams. Magnetic Resonance Imaging (MRI), Computed Tomography (CT) and a conventional x-ray team (DR). See figure 10 on page 92 for the overview. The technical knowledge required to perform in the different teams differs greatly. MRI is very requiring a great deal of technical knowledge on how magnet behave and affects the human body in order to create images. This is the reason only super-users are constituting the MRI team. Super-user are radiographers who have taken courses in order to improve their technical competencies beyond the curriculum from the school educating radiographers. The CT and DR teams are constituted by super-users and non-super-users. The idea behind super-users it to specialize in relation to a specific modality.

Due to the team structure the technology development makes it more difficult to keep up to date on all the modalities. Based on the managements perspective radiographers are required to specialize in order to provide the highest possible quality of patient care, which is what the patients deserve.

"I think it strengthens (the professional competencies), since you only focuses on a single modality. In my case we are during MRI scans, we are not during CT scans also. We just got

a new scanner (CT), and we get another one at Frederiksberg. Are you supposed to keep up to date on all of them?... We reach a shared low level regarding competencies, and I don't think we treat our patient unless we do the best we can" BFH-L5 l. 265-273

Radiographers as part of research

Improving the competencies of the radiographers can be done through participating in research. Being part of research challenges you to sometimes think outside of the box. Research is also not just research, but is seen as being part of the daily work. This is done through including the radiographers in research projects. The research being performed is, however, secondary to the demands for production. Capital Region have specified how many examinations are to be carried out regarding MRI, CT, DR etc.

"I think we need to make a lot of room for research and to include the personnel, while trying to making research part of our daily work. The positive is the radiographers gets a break from only just meeting the demands for production and some gets to be involved in some exciting things. The negative is we got to live up to the demands for production" BFH-L3 l. 130-134

The position of the department managers - part of practice?

The position of power held by the department management gives them a certain amount of freedom to act. The amount of responsibilities and tasks has however increased over time. A few year ago the department managers took active part of the work being performed by the radiographers. They would take over when it was time for the radiographers to get lunch or if not enough radiographers were at work because of sickness or something else. The reason the department management is helping out the radiographers less than previously is because of two causes. The department managers have gained a greater deal of administrative tasks and the imaging examinations are become more and more difficult. The imaging examination becoming more difficult is based on a greater need for technical knowledge on the various imaging apparatus being used.

"I'm getting more and more out of rusty, but on days where we lack radiographers to perform the scans, I'm helping out, while I work a little bit on my own tasks… But the examinations

> *keep on getting more difficult, since the simple examinations are placed outside of the daily program, in the evening"* BFH-L5 l. 92-96

Not all the department managers can however find the time to participate and help out radiographers during breaks or other times of need. Of the department managers one saw herself as on the radiographers examining patients at the department. The amount of tasks to done for the department management have grown too much and said department manager cannot do both her own tasks and help out at the department. The tasks needs her full attention and it is not because she does not want to, but it is too much to do both.

> *"Once I saw it as such, but now I don't because of the number of tasks on my own place. In the beginning I helped during lunch breaks, or if someone else needed my help, but not now. The number of tasks we have to do is too great and it is hard to be at two places at the same time"* BFH-L6 l. 98-101

It is important to be mindful of the teams the 3 department managers lead. Each team is related to different imaging modalities (e.g. CT or MRI), the work structure is different and competencies required are also different. Seeing one of the department managers helps the radiographers sometimes and one does not, it is important to remember their circumstances are not the same.

Department management getting help from radiographers on the work structure

The department managers have implemented a change in how radiographers are planning to be working. A medical imaging department in general designs its workspace by different rooms. Rooms are designed for MRI, CT or DR in most cases. Magnetic Resonance Imaging (MRI) is based on the use of strong magnetic fields to create images, which need to protected from external interference, which can affect the images. Computed Tomography (CT) and conventional x-ray (DR) are using x-ray to create images. Use of x-ray have the risk of giving those exposed cancer. CT and DR rooms need to be designed so x-rays do not leave the room, in order to only expose the patient to x-rays.

At an medical imaging department radiographers are daily signed to a specific room in order to examine the patients assigned to the room.

Previously the department manager had the sole responsibility of assigning radiographers to the rooms they were working in, at a specific day. The department managers have started to

include a few radiographers to help assign radiographers to rooms. Just as the Leading department has passed on responsibilities, and thus power to act, the department managers have passed on some responsibilities to a few radiographers. This is very new, and a few radiographers are only being involved during the trial period.

> *"... I'm training a radiographer to help assign to the rooms"* BFH-L5 l. 307-308

Long term planning is also very important for the department managers, as well as the rest of the medical imaging department. Laster year (2017) the department were told to optimize their production regarding MRI, increasing the total number of patients they MRI scanned for the whole year. According to the new terms of production, the department were behind schedule, and had to work really had. This year (2018), the required production for the whole year is the same as last year. The different is the management have a whole year to spread the workload onto. The radiographers doing MRI were included in the planning of the production, giving the radiographers the opportunity to decide when to produce how much.

> *"We were told 1st January to scan as many patients as last year… Last year we were told " BFH-L5 l. 125-131*

Handling radiographers decreasing wellbeing

As mentioned in the previous section the well being of the radiographers had shown to drop. Some of the causes for the low feeling of well being were identified as the structure of the evening and night shift, and the fact that not every radiographer knew or saw each other. The latter caused a disconnection within the team. Being several radiographers in a team split between two physical workplaces caused frustrations with radiographers. The solution was to arrange a monthly meeting to get together and follow up on topics.

> *"... every month we meet for an hour to gather up. Who are in the team, and are there any new to the team"* BFH-L5 l. 154-155

As a final values, the department management finds it very important that working is fun and challenging, and should not centered about being as productive as possible.

Summarizing the key values for the department management

- Strengthen the professionals competencies.
- Bringing the professionals from the two departments together.
- Perform research, involving the radiographers
- Being part of the practice with the radiographers.
- Setting time aside for the radiographers to do special tasks during the day.
- The wellbeing of the radiographers is important
- It should be fun and challenging to work and not all about production

6.1.4 Employees at a medical imaging department

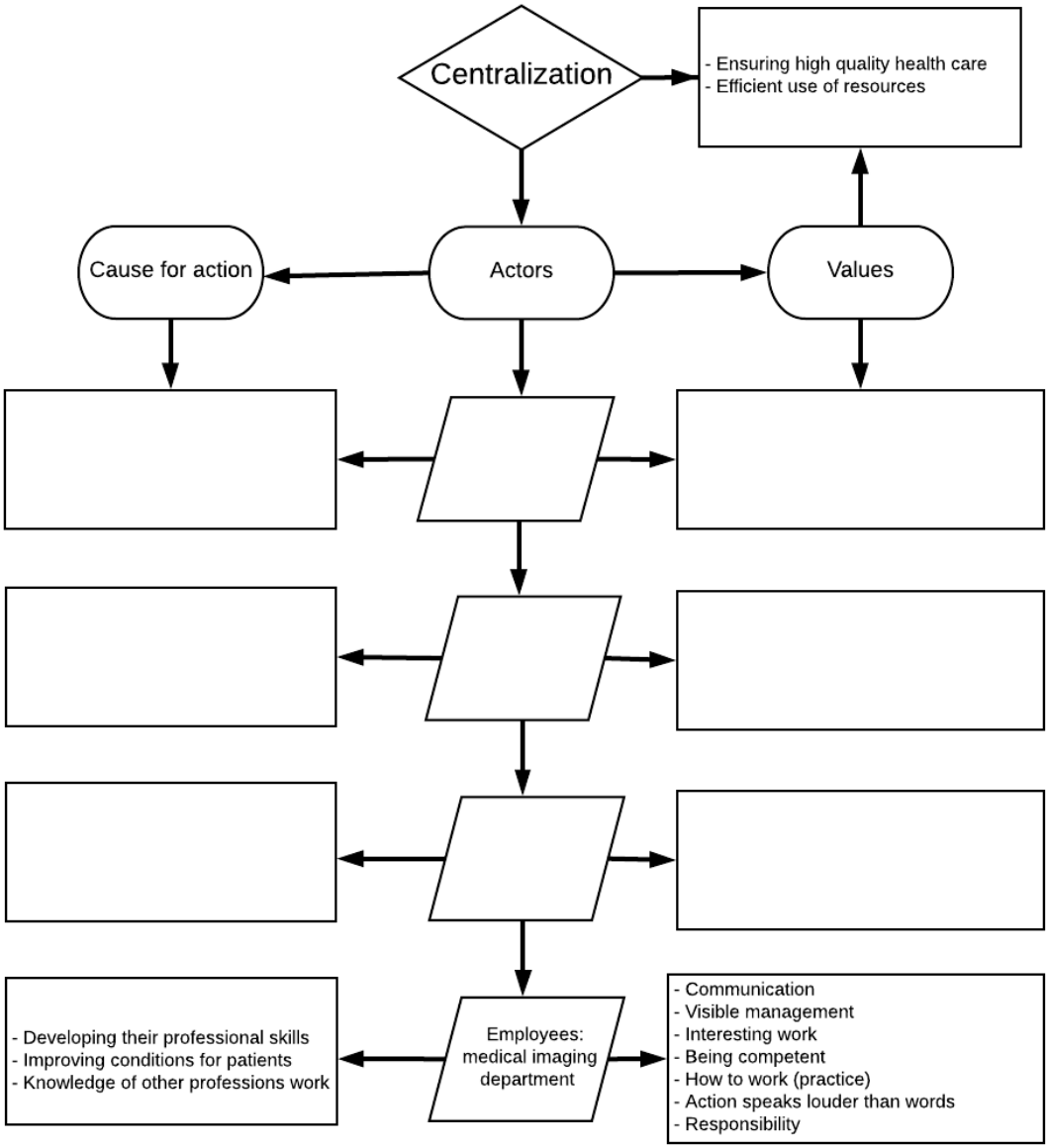

Figure 9 - Model of Employees, their values and causes for action

The medical imaging department at Bispebjerg & Frederiksberg Hospital is the department, which is referred to throughout this section.

The medical imaging department at Bispebjerg & Frederiksberg Hospital is constituted by 3 primary professional groups - radiologists, radiographers and secretaries. Radiologists are doctors who have specialized in analyzing and describing medical images. Radiographers began as nurses who could had further educated themselves to produce medical images through

different technologies through the times (CT, MRI, x-ray etc.). It is important to distinguish between the professional groups. In practice they each have different functions, relations to technology, work structure, values, responsibilities and power positions. Each professional group will be analyzed separately based on my own experience and the fieldwork and interviews conducted throughout this project as well as my previous project.

6.1.4.1 Radiologists

Radiologists are doctors who have specialized in analyzing and describing medical images from various modalities (CT, MRI, x-ray, ultrasound). My experience from during the interviews, the field observations and from my own experience in practice three factors matter the most. At the moment at least, to the radiologists. The quality of the work done by radiologists and the increased demands for production at the department. These subjects stated above are based on the field I have been in. Other department will without a doubt have other issues, based on their own experiences.

Radiologists and multi-modality approach

In recent years radiologist's workstructure have changed. Radiologists used to "belong" to a specific imaging modality being a MRI-radiologist or and CT-radiologists. Today radiologists are structured based on the part of the body they specialize in such as the abdomen, musculoskeletal or neurology through a multi-modality approach. The multi-modality approach implies using medical images from the various medical imaging technologies.

> *"In the past it was divided based on the modalities. You were either a MRI-radiologist or CT-radiologist (e.g.), it becomes more organ specific now that I have the abdomen, where I used all the modalities being used on the area"* 2BBH l. 53-55

The current structure is based on doctors being able to see a pathology from different perspectives through different medical imaging technologies. Each medical imaging technology is producing images based on different techniques making some better than others to view different part of the anatomy. Being able to perceive a pathology from different perspectives widens the radiologist's ability to analyze a patient's pathology and provide a better conclusion on the patient's case.

> *"When I as a radiologists are looking at something, I need to be able to see in my head, visualizing how this conditions looks from MRI, CT, x-rays, the patient and blood samples. If I don't know I cannot give the correct description from what I see at the examinations and I cannot provide the proper visitation"* BFH-L1 l. 555-558

Radiologists work is based on pattern recognition and conservatism

Medical images can through a single medical imaging modality be produced with endless different results. Each modality have parameters which can be changed altering the outcome. A radiologist's analysis and description of medical images is based on practical experience and professional background knowledge. The practical experience leads to each radiologist possessing a set of pattern recognition which has taken years to learn. This set of pattern recognition enables radiologists to analyze and describe images produced in a specific way unique to each radiologist.

> *"Yes and our work with medical imaging is based on pattern recognition, which has been build gradually. This leads to a significant conservatism among (MRI) radiologists regarding changing protocols or changing protocols to include newer sequences because our pattern of recognition is based on some of the sequences which have been in place from almost the beginning"* RadiologistBFH-1 l. 82-86

This is not the the case specific to MRI. From my experience radiologists each have preferences on how they would like to have their medical images produced, regardless of the medical imaging modality. This practice of radiologists tends to control the procedure for image production. External factors also affects how radiologists wants to have their work presented. Clinical departments such as orthopedic surgery are depended on the work of radiologists (and radiographers). During surgery the screen presenting images of the patient is not of the same quality as the radiologists. The radiologists look at images in the dark while a orthopedic surgeon looks at the images on a screen in room with very bright light. The radiologist have to ensure the images produced can be used in both situations. Not only the screen, but also the circumstances in which the images are viewed in is to be regarded.

> *"But it also means there are some radiologist related considerations regarding conservatism, but also some surgeon related considerations, since the images are to be used during an operation"* RadiologistBFH-1 l. 90-92

> *"It can be of importance to think about the operational usage of images by the recipient. Simply, can these images be of use, if looked upon a screen in a operating room with bright light?* RadiologistBFH-1 l. 97-99

Other specializations, such as rheumatology, are not viewing the images in a bright operating room and the considerations toward a rheumatologist is not the same as the considerations towards a orthopedic surgeon. Each clinical at a hospital do not have criteria regarding images since the circumstances in which the images are viewed differs.

> *"Yes and for a rheumatologist who does not operate the considerations are lesser"* RadiologistBFH-1 l. 108

This shows not only factors internal to the medical imaging department are important, but also external such as the clinical department using the images produced. The composition of clinical departments being serviced at each hospital is unique and radiologists at each hospital are therefore having different practices regarding how produced images should look.

This means the rate at which radiologists changes their preferences to medical images are at a slower pace than one would image. Changing how medical images should be produced would have an affect on not only the medical imaging department but also the clinical departments using the product of radiologists, and could lead to an incline in the quality of radiologists' work.

> *"If you implement it overnight, it would simply destroy our pattern of recognition, and we would describe images blind"* RadiologistBFH-1 l. 121-123

Radiologists and the adjacent clinical department

Medical imaging departments depends on adjacent clinical departments

Working in a hospital at a department servicing other clinical department, radiologists get to know several of the practitioners/doctors at the hospital. Knowing other practitioners could influence the way radiologists thinks about their work. Knowing another practitioner who are depended on ones work could make the radiologist more conscientious and thorough.

> *"I believe, when you know the other practitioners who uses your work, i think, even though it might a bit bold said, but I think you are more conscientious and thorough"* RadiologistBFH-1 l. 194-196

Knowing another practitioner could lead to sense of feeling more responsible since the practitioner is depending on the work of the radiologist. Within a hospital the different department a relationship have been built over time. The practitioners know each other and they know what is implied when communication. They have some sense of understated understanding when talking to each other. The same understanding is not established across hospitals. The lack of the understanding could lead to more work since communication would have to be more specific and misunderstanding could occur possibly.

> *"When we communicate with our clinical departments, they know what we mean, we know them and they know us, and you would now have the same relationship across hospitals…"* RadiologistBFH-3 l. 96-98

The produced descriptions of the medical images differs from hospital to hospital. One of the radiologists sees the differences between radiologists at different hospitals as a positive thing. It would be boring, and the variation in the image description causes the radiologists to learn from each other. The important thing is not the variation in the image descriptions, but the lack of variation regarding conclusions.

> *"Whether is it between us (Frederiksberg) and Bispebjerg, or us and Herlev & Gentofte, different people describe the images. Descriptions are never identical and that is a good thing because it would be boring otherwise. We need to have variation so we can learn from each other"* Radiologist2FRH l. 199-202

> *How I describe the images. Be it 10, 15, 30 lines, it does not matter. But the conclusion needs to be the same, that is what is most important"* Radiologist2FRH l. 203-205

The radiologists interpretes medical images based on their pattern recognition which is unique for each radiologist, since it is based on their personal experience in practice. As long as reaches the same conclusion does it matter what path they take to get there? The matter on the work by radiologists will be discussed later in section 10..

The quality of the work being performed is also based on radiologists professional background knowledge. The basis of background knowledge is based on what is learned through the education system. During daily work the also depended on evidence based research within their field of expertise. If they need assistance to describe a patient's pathology they often resolve to research articles or literature on the subject. Particularly literature is connected with familiarity. The radiologists office often look chaotic, books all over the place. But there is an order to the chaos in which the radiologists knows where to find the knowledge on a subject he is looking for. His own office is directly connected to his or hers productivity. During the merger the radiologist interviewed said he had a less positive experience with working at the other department. He was in an unfamiliar office where he did not know which books to look up and find what he would eventual seek. Radiologists rotating between the departments does not have a base where they know where everything are. Radiologists are depended on being able to look something up if needed since the field of radiology related fields contains so much knowledge. Not being able to use familiar literature causes the merger to be less efficient than it could be. It may seem trivial to some, but to radiologists literature is an important tool.

> *"... which makes you in need for being able to quickly look something up in literature you are familiar with. This also makes the rotation less efficient"* RadiologistBFH-1 l. 180-182

The radiologist feels he is letting the patients down. When you come at a new place, you are having another setup at the computer you get. It should be the same since each employee have their own personal login, so the desktop should look the same, but is does not. This reduces the efficiency of the radiologist, which is not desired.

> *...it is just, you feel you are letting the patients down. You come at a new place, you are having another setup (at the computer), despite the opposite should be the case. But it not. So a great part of our setups are attached to the locale workplace"* RadiologistBFH-1 l. 168-171

Other issues with the rotation between Bispebjerg Hospital and Frederiksberg Hospital by radiologists are the difference in clinical departments belonging to each hospital and the geographical differences. Both factors contributes to a difference in the patients being

examined and the medical images produced. Both factors also acts as obstacles regarding radiologists working at another medical imaging departments than their own.

> *"The problem is that we have two different types of patients. We got rheumatological patients to a great extend here (Frederiksberg). Bispebjerg got MRI neurology and orthopedic surgery as examples. We had a collaboration going on between the two departments, but because of different patient groups and geographical differences, and being short of manpower, the collaboration has not been realistic. I tried to rotate, but gradually had to give up"*
> RadiologistBFH-1 l. 159-164

How increased demands for production has changed the practice of radiologists

The focus previous were on the radiologist's perspective on quality regarding their work. The next is related to a feeling of an increased demand for production at the medical imaging department. Firstly a couple of examples of how things once were being a radiologist. During the example is it important to notice technology at the time were based on x-ray images being photographic processed and x-ray technology used today has been digitized. The examples are to give an insight in how it was *back in the days*:

> *"You walked around and the conference was prepared for the following morning. There would surely come something during the night shift, but the images which had been described already hang on the wall. The person who had been in charge of the conference were asked to pick out three or four examinations they were insecure about, something others could learn from or something a discussion could be based upon. It was so funny, I was at Hvidovre and the professor had picked something very banal, and asked one of the very skilled chief physicians if he would discuss this examination of colon (part of the bowel), and they went at it. It was for the sake of us younger doctors… they did not have to do it, but they did it to introduce us to the parlance, the terminology and how to look at the pictures"*
> Radiologist1FRH l. 239-250

This is a thing of the past and is not happening any longer. At least not in Denmark. The increased demand to describe more examinations in less time has become part of the radiologists' work.

> *"It is because of the increased production demands it has been removed from practice, there is no time for it and the amount for examinations have become so large… there simply is no time"* Radiologist1FRH l. 251-252

Another example was given to show radiologists worked interdisciplinary with other practitioners. Orthopedic surgeons used to be at Frederiksberg Hospital but moved to Bispebjerg Hospital to merge the two departments:

> *"…when we had orthopedic surgeons, they came down on a daily basis and said: try and see this, this is how it looks when we perform arthroscopies. This is what you described, try and see it does not fit quite right. The ligament is intact down there. Then you go look at the MRI scan and you might be able to see some fibres which are intact… you learn a lot from these experiences. Sometimes they came down and told me to drop my coat, come up and wash our hands and join us at the operation. I got something here which you described that you need to see"* Radiologist1FRH l. 278-284

These are examples of ways of learning that once were part of the hospital culture but is no more. Interdisciplinary work was more present previously. Beside acting as a source of enjoyment from being a radiologists, it was also a source of knowledge. Being able to see in real life what you describe in pictures could lead to a greater understanding of the human anatomy benefitting the radiologist's competencies.

The production demands seems to take time from other tasks which the radiologist should also perform. Participating in meeting is being neglected since the workload would not allow it. It shows the radiologists have a great sense of duty towards the patients. The patients cannot be diagnosed before the examination have been described, which puts the radiologists in a position, with a lot of pressure on their shoulders.

> *"I think it is because of the staffing situation I have neglected to participate in quite a few meetings. Simply because we are so few and we are chronical besieged by the practitioners regarding us finishing the examination descriptions"* RadiologistBFH-1 l. 37-39

The amount of medical imaging examinations have increased significantly according to the radiologist. To decrease the workload of the locale radiologists some of the examinations were sent to external radiologists. The clinical departments want the locale radiologists to describe

the examination images. The cause for this could be based on the understated understanding between the locale departments. The locale radiologists and the clinical practitioners have communicated over a long period of time and has properly developed some kind of streamlined communication, where miscommunication is not happening.

> "*...but the amount of examinations related to the number of radiologists has exploded. And we have the problem with the clinical practitioners, that they want us to as describe the examinations instead of sending them to an external radiologist"* RadiologistFRH-1 l. 263-265

As stated through the previous examples and quotes striving towards an increased production can have its disadvantages. Being productive all the time can have negative side effects, harming the production in the long run, if meeting the demands for production overshadows learning new things. Working could ends up becoming repetitive.

> *"If there is no time, and you have to be productive all the time, then you don't learn, and then the production will gradually fall because quality decreases, it becomes repetitive and boring, errors…"* Radiologist2FRH l. 74-76

It is not definite production will fall as a consequence of focusing too much on production in the first place. It is however plausible scenario and a factor to be aware of. Opposing the production demands is not easy as the radiologists could an unease by not accepting the conditions for increased production.

> *"I see the working agreements as a deal which is more or less contracted assignment. If you don't agree to the demands coming from the higher levels in the system, you have put yourself on the firing-ramp"* RadiologistBFH-1 l. 26-28

The situation where the higher levels of administration dictates term of production is based on a top-down management. Where or not it is true in practice, as long as the employees feel forced to overwork to be able to meet the production demands something might not be right in the system.

The management structure for radiologists and radiographers at Bispebjerg & Frederiksberg Hospital is not the same, which is illustrated by figure 10 on page 92. Radiographers have a leading radiographers and three department managers, while radiologists only have a leading radiologists in relation to their profession.
The radiologists are working on a team based structure (abdomen, musculoskeletale, neurologic), and each team as a team responsible radiologists. From my experience the team leading radiologists is responsible for professional decisions and the overall team structure. The team leader is still not equavalent to a department manager, leaving the daily challenges to the radiologist themselves.

> *"Yes but we handle the practical things ourselves. X has the responsibility, but a lot of the time he is not doing clinical work, so we have to handle daily todos ourselves. If one is sick, how do we plan it. There is nobody, it is just me, Z and Y"* RadiologistBFH2 l. 52-55

Radiologists have a lot of responsibilities on their shoulders in practice. They have to perform their normal job of describing medical images while making sure they every day are organized and able to keep up with the production demands. This increased responsibility leads to a greater position of power, which is why radiologists are more independent. There are however also more at stake if they do not live up to their responsibility. Patients will not get a diagnosis if a radiologist neglects analyzing and describing medical imaging examination, which will have consequences for the radiologist.

A trait highly valued among radiologists for their leader is the ability to see the general picture. Understanding the modalities used is important, but it is of even more importance to know what is going on at the department.

> *"It is not so much the modalities, but also seeing the bigger picture of practice. It might be the modalities who does it, but when being a leader I expect the leader to have a general picture of what is going on at the department"* RadiologistBFH2 l. 35-37

The same conditions are applied to the Capital Region. Having the greater picture in mind is important, but knowing what is happening down at the practical levels in hospitals is also important.

"The organization matter because it is a huge organization (Capital Region), and something happens all the time. But knowing what the professionals are doing at the hospitals is also important" Radiologist2FRH l. 263-264

Summarizing the key values for the radiologists

- The quality of their work
- Type of patient intake affects practice
- Increasing production demands too much can harm the practice
- The relationship with other department practitioners is important to practice
- Working conservatively
- An understanding from the higher administration on what is going on in practice

6.1.4.2 Radiographers

Radiographers are the ones producing the medical images through the medical image technologies (MRI, CT, x-rays). Practice is primarily constituted by patient care and usage of advanced medical imaging equipment which influence the values of their practice and how they prioritize their work. Radiologists, as mentioned in the above section, and their work are based on a multi-modality approach towards the field of radiology. After implemented a new team structure regarding the radiographers, radiographers are dedicating themselves to to a primary medical imaging technology. Radiographers therefore meet other circumstances and challenges in their daily work.

Attitude towards merger

Radiographers at Bispebjerg & Frederiksberg Hospital have a notable attitude towards the process and the new situation after merging the Bispebjerg Hospital and Frederiksberg Hospital. The merger between the medical imaging departments began in 2011, a year prior to the merger between the rest of the hospitals departments. One of the radiographers felt the process of the merger has reached a point where the management would have wanted the merger to be at on day one. Even though a merger has been implemented the two departments still have different ways to perform the practice.

"You don't work the same way at the two departments, and you are not supposed to. Improvement have been made to handle the different ways of working, but it is only natural it

> *is happening over time. We are almost at the point in the merger process were the management would have wanted to be at day one"* RadiographerBFH-2 l. 151-153

One of the most significant differences between the two medical imaging departments are the different cultures. Treatment and conditions for the the radiographers do not differ, but still a sense of coming from different workplaces is noticed.

> *"Well we do have a difference in culture, that is for sure. I don't think we are being treated differently or having different conditions. But we are clearly coming from two different cultures"* Radiographer2FRH l. 327-239

Claiming having different cultures could be based on several things. A radiographer working within MRI stated the cultural differences were based on their approach to how they work. The department at Frederiksberg Hospital has a more loose attitude, while the department at Bispebjerg Hospital is very strict. The different attitudes is in no way compromising the safety of the patients, the attitudes just differs.

> *"Those at Bispebjerg are more strict, and you follow the rules to the letter, in general. It is just a bigger deal than than at Frederiksberg, where we take a more practical. Can it be done, it does and it is fine. It is not because we are compromising safety, but we have another approach. If you are getting your feet scanned it is okay to keep your nose piercing, it doesn't matter. Opposed to Bispebjerg where some might cut it off. There is definitely a different in culture"* Radiographer2FRH l. 333-339

A possible reason for the two medical imaging departments to have different attitudes could be because of the different patient groups. Patients at Bispebjerg medical imaging department are more often acute patients than not. In contrast, Frederiksberg medical imaging department primarily examines drop-in patients which can categorized as outpatients, and are patients who come from home in a not acute state. Having to treat patients in an acute state requires stricter safety precautions which incorporates a specific attitude towards safety procedures. The opposite is true for Frederiksberg medical imaging department with outpatients leading to a less strict relationship with safety. Again, it is important to note none of the workplaces compromises patient safety.

> *"No not at all. It is more about the clinical departments we serve. What you do here (Frederiksberg) and at Bispebjerg is like day and night. We primarily primarily the drop-in function gradually, in contrast to the clinical patients"* RadiographerBFH-2 l. 39-42

It is not only how things are done that is different between the two medical imaging departments. The physical environment, where are the different tools placed, where are the doctors sitting, who do you call when needing help in a certain situation? To perform the work at the scanner several types of helping tools (contrast media, venous catheters, towels etc.) is needed, and if you run out during the day it is important to know where to get more. Performing external examinations at other clinical departments is also part of a radiographers work. If a patient at another clinical department is unable to get to the medical imaging department, radiographers are in possession of mobile x-ray equipment, and are to perform the examination at the clinical department. Having knowledge of the physical environment also includes the whereabout of the various clinical departments at the hospital. Wandering around unsure of where to go lead to a waste of time and a reduction in efficiency.

> *"... you are used to on thing, and then you have to go and do it another way, so it matters. It is not just about the examinations, it is also about the daily refills. Everything related to the work is done differently, so you are going through training anew, kind of"* Radiographer 2BBH l. 175-179

Having different cultures and some things are done differently at the two medical imaging departments. But is it a problem? Setting aside the physical environment and the different work routines, radiographers are still of the same profession. Despite doing things differently and having different opinions on certain matters, radiographers understands each other coming from the same education system and culture attached to their profession

> *"The differences between our cultures is noticeable, the one and the other place. They do things differently, but it is not something I see as a problem, looking at the big picture. We are still part of the same profession and know what each other talk about"* Radiographer1BBH l. 227-280

Despite their differences the two medical departments are working towards more similar work routines across the two departments. An issue moving towards more similar work routines is

habits and dealing with to ‘how we used to do things’ way of thinking. Work routines become part of locale work practices over time and are hard to let go off.

> *“We work towards it (similar work routines), but some of the ‘how we used to do it’ are hard to kill”* RadiographerBFH-1 l. 95-97

This next text will focus on radiographers working with MRI. The field of MRI is special by how difficult the theory behind the technology is. How magnets can affects the human body on a molecular level and how do we apply it in order to produce medical images. From my time studying I remember MRI as being the most complicated to wrap my head around. MRI is also the field in which radiologists disagree most on regarding how to design a MRI protocol for use in practice.

From the perspective of radiographers, the radiologists are in conflict regarding which MRI protocol to use to MRI scan a knee for example. An episode occurred where a radiographer accidentally mixed the protocols and scanned at Frederiks using an protocol from Bispebjerg. This resulted in the radiologists being dissatisfied with the MRI images, ending in an discussion on what is the right way to work.

> *“I think it depends on culture. The example I think of is where Bispebjerg ran one more sequence in a specific protocol, which those at looking at the images at Frederiksberg were unsatisfied with, ending with an discussion regarding what is the most correct way to perform perform the protocol”* Radiographer1BBH l. 194-197

Having two workplaces with slightly different work routines can be the reason for frustration. Some radiographers have experienced to be switching between Frederiksberg and Bispebjerg one day at a time.

> *“It it not optimum in my opinion. It is alright to work together, it is not as much a collegial thing, we work well together and know each other. In the MRI we have been in the MRI team for years. We know each other and have not had any difficulties with it. But it can frustrating at times to be at Bispebjerg one day, one day at Frederiksberg, then at Bispebjerg and then at Frederiksberg again the next day. It is not just me thinking it”* Radiographer1FRH l. 314-319

Changing between workplaces can take focus of the primary task at work. Everyone know the feeling of having a new job and how much energy it takes to adjust to a new job. Off course having two workplaces to be at alternately is not the same as having a new job, but the the mind is not completely on the job. Having to think of how to do the trivial parts of the work routine instead of the working is based on routine can be distracting.

One of the radiographers have had previous experience with merger processen. In 2003 Kolding Hospital and Fredericia Hospital went through a merger alike the merger between Bispebjerg Hospital and Frederiksberg Hospital (Pedersen, 2009 p. 53). The actor responsible for the merger was Vejle County. The merger happened before the structure of the five regions replaced the counties in Denmark.
Kolding Hospital and Fredericia Hospital became a multi-sited hospital with a single management structure such the hospital structure in Capital Region.

The merger process were shorter. From the beginning only ⅔ of the workforce were to be part of the merger. The last ⅓ would be those not wanting to participate, were too old or lacking the competencies to be part of the process. The ⅔ would then be mixed together very in a short period of time and told how the new work structure was going to be. The split of the workforce was to being able to optimize the merger process and complete it faster, avoiding those who would oppose the merger and slow down the process through resistance.

> *"It was a much shorter process. They were quick to state some were not to be involved in the merger process instead of forcing everyone to participate and finding out some weren't up for the task, not wanting to part of the process, working against the merger or being to old or not prepared enough. They said they would take ⅔ of the workforce and tell them to be part of the merger. The last ⅓ would get off completely. The ⅔ would have to move quickly into groups and be mixed. I think it work better because people knew what was happening, and it happened now"* RadiograherBFH-1 l. 148-154

This structure of the merger removed some of the potential resistance allowing for a more accelerated merger process. This could be seen as a strategic smart move by the management. Being excluded would then generate a form of being left of the hospital development. Some of the radiographers in the ⅓ having been excluded from the merger quickly joined the merger on their own initiative even though they had been excluded based on their age or something else.

During this merger process the employees, some at least, joined the merger on their own initiative instead of being forced to be a part of it. The radiographer telling the story of the merger between Kolding Hospital and Fredericia Hospital feels the radiographers at Bispebjerg & Frederiksberg Hospital have been in position where they were more or less forced to be part of the merger. Some of those complaining were excluded from the merger process.

> *"Yes and I think it was predictive by the management to state only ⅔ were to be part of the merger process from the get go. It quickly showed some of the radiographers in the last ⅓ actually wanted to be part of the merger process and joined, even though they were excluded based on their age or something else. In this process (Bispebjerg & Frederiksberg Hospital) it is like people have been more or less pressured into participating in the merger, and some of those complaining have been excluded from it. I think it is the reversed world"* RadiographерBFH-1 l. 158-162

The merger process at Bispebjerg & Frederiksberg Hospital dragged on longer than the merger between Kolding Hospital and Fredericia Hospital but the merger has happened and it working. A continuous resistance is however still existing in the form of what the departments used to. "That is how we have always done things" and "that's not how we used to do it". The existence and use of the terms "we", "they" and "us" creates separation between the departments and has been going on too long according to the radiographer.

> *"... there are always someone who complains, and always someone who thinks 'that is how we have always done things', 'that's not how we used to do it'. But this 'we', 'they', and 'us' has been going on too long"* RadiographерBFH-1 l. 176-178

Why did the management at BFH have not drawn upon the experience from Vejle County. It could be argued whether is was because it was a county matter and not a regional matter that the experience from the merger process was missed to be implemented. At the current moment I am not sure if there is a systematically record system based on past experiences with merger processes, implementation of new technology or larger IT-systems. If there is not, perhaps is should be considered as it would support the idea of how to improve health care based on a scientific methodological approach.

Attitude towards team structure

The radiographers attitude towards their team structure is very important. The attitude is based on how their shifts are structured, how their competencies are affected and how much freedom each radiographers has within his/hers own professional field. The team structure could be viewed as centralizing the core competencies at the medical imaging department.

One of the areas of focus for the Capital Region is the professional quality and finding ways to increase it. From the interviews is seems as it is not the goal in itself that is an issue, but rather the process in reaching than goal. The primary attitude towards the team structure is less positive. One of the radiographers interviewed sees the radiographers as incapable of developing their professional competencies due to the team structure.

> *"People can't develop their competencies as they see fit. Maybe if it had been a 100% independent choice which team people wanted to be part of, but people haven't chosen themselves.* RadiographerBFH-2 l. 124-125

Being in a specific team would mean to most, that you would spend the majority of your time in that team. The radiographer states he has been told by the management is does not matter which team you belong to, since being in either the CT or DR team would mean you work with both modalities. MRI is a special case since the MRI team is only constituted by super-user. The experience the radiographer have had with the team structure is, that he is working a lot more with the modality he is attached to.

> *"They claim it doesn't matter, it could just as well for be called team 1 and team 2, but in practice it is just bullshit. You are working a lot more in the team you are assigned to, and we all knew it would be like this. When a department manager plans how the radiographers in her team are to work, then off course she assigns them to the rooms with the modality attached to her team"* RadiographerBFH-2 l. 132-135

It makes sense for a department manager to plan the radiographers work schedule belonging to their team and assigning them to rooms which are associated with the team. The consequnce is that each team is separated and working with in their own subfield of radiology. What team you are dedicated to also decides the structure of the work schedule. What kind of shifts and which of the departments.

> *"Everything has changed… they have made MR, CT and DR teams, where we are completely separated. Everything is fixed, what kind of shift we can have and where to have shifts"* Radiographer1FRH l. 262-264

The shifts can be separated into day shifts, evening shifts, night shifts and weekend shifts and those shifts are distributed at Bispebjerg Hospital and Frederiksberg Hospital. The essential part is the radiographer's feeling of being tied down and isolated in a subspeciality within their own field, with the management deciding how their professional competences are to develop.

One of the other radiographers is more positive towards the team structure. The radiographers believes the team structure is part of the development for the radiographers. The radiographer is however also critical to the process regarding how the team structure was implemented and is still being implemented. It is important to be critical towards how the team structure is and how a department manager can take on the position of a team. What are the required qualifications? Should it be required that the department manager for each team specialize herself or himself, acquiring the same competencies as the radiographers towards their respective modality? How are the team structure implemented? Are team building or other arrangement made in order to get a feeling of belonging in a specific team?

> *"But someone has decided this is how it's going to be, and I believe team structure is the way to go. Our profession is so wide now that we are not to have competencies within every modality. That is my firm belief, but the question is what team structure is implemented? What type of team leader do you have, and what kind of tasks do they have? Do they have the time to be proper team leaders? Is team building being applied in order to get a feeling of belonging to a team? And if not, is it the right time to implement the team structure? I think 2018 should be the time for a team structure, so maybe the management and the implementation wasn't"* RadiographerBFH-1 l. 119-126

How radiographers view the management's role

In practice it is important to understand how the professionals view the management and which traits of the management are seen at most important by the professionals. The management will be divided into the leading management and the department management. The traits seem at

most important by the two management groups differs based the the different roles the leading and the department management embodies.

In relation to the management in general at the medical imaging department, there is an impression of being understood and heard. The issues on the practices being understood are to be found on the administrational levels above the leading management. The reason for a lack off understanding between the higher levels of administrations and practitioners is partly based on the number of administrations layers. The more times a message has to be repeated through a chain of communication the bigger the risk of something is lost in translation. The many layers of administration are part of the hospital structure, which makes it very hard to change. This communication structure and possible lack of understanding from the administration sometimes cause things to be implemented in the department in which the professionals do not agree upon.

> *"In out team and at the department, I got the impression we are pretty good to talk about, getting asked and getting heard about what is going on at the department. Going up in the higher levels of administration you can get the feeling of having some things pulled down over your head. There are a lot of administration layers when working at a hospital"* Radiographer2FRH - 255-258

To the radiographers it matters that the management and administrations levels have an understanding for the practices being performed at hospitals.

> *"...you don't have to get very high into the administration levels before losing the idea of what we are doing in practice"* Radiographers2FRH l. 262-263

This possible disconnection between management/administrational levels and the professionals is also based on how far into the future the actors are planning. Radiographers go to work, do their work to the best of their abilities focusing on what is happening each day. Radiographers are not planning far into the future because they need to be present when working with patients. Management and administration on the other hand are planning years ahead. The Spcialization Planning and the ongoing Hospital Plan 2020 are based on how the future is to be in the health care sector. This radiographers feel as the management develop ideas and visions, but at the

cost of losing sight of what is going on in a day-to-day practice. When asked if the management focuses too much on the future the radiographer responded:

> *"Yes way too much"* RadiographersBFH-2 l. 28-34

> *"...the ideas and visions are great, I just think it is very much at the expense of getting the present to work, with all that implies, very often"* RadiographerBFH-2 l. 263-264

Next, some of the department management's traits valued by the radiographers will be presented. After the team structure were implemented each team were assigned a department manager responsible for each team. One of the radiographers sees it as a very positive trait that the leader can be part of the radiographers when needed. Being able to be part of the practice performing the medical imaging examinations, also implies an understanding of the practice.

> *"Yes it is pretty good she is able to take over once in a while"* Radiographer1FRH l. 238

Before the team structure, radiographers had a leader who did not understand the practice of MRI making it difficult to make agreements at times. The leader retired a few years ago and was educated before MRI was part of the field of radiology.

> *"... but we did not have our own manager, only a department manager who knew nothing concerning MRI, at all. It was pretty clear she did not understand what we did (MRI), and maybe she didn't want to know. It could be hard sometimes... to arrange things…"* Radiographer2FRH l. 237-240

> *"...how regarding work routines… so we can clearly feel out present department manager has experience with MRI, and that she actually know what we do, and if she doesn't, she asks"* Radiographer2FRH l. 244-246

One of the radiographers from one of the other teams was also asked if her department manager participated in practice, helping the radiographers if helped was need. And the department manager is not part of practice, though the radiographer would like her department manager to partake in their practice from time to time.

> *" Do your department manager help if an extra hand is needed?"* A l. 69

"No" RadiographerBFH-1 l. 71
"Would you like to?" A l. 73
"Yes" RadiographerBFH-1 75

The reason for the radiographer wanting their department manager to participate when things are stressful, is for the department managers to understand how the situation was. Sharing the experience and solving the problem at hand provides a common understanding of what went wrong, and how to prevent it. It is not about the doing the work itself but understanding how the situation was when talking it at a later time.

> *"Yes also because you share the experience of the chaos or solving the issue. It provides a better common understanding"* RadiographerBFH-1 l. 79-80

> *"It is not because they have to come out and try it, men during the intense periods it is fine to have a common understanding for how the situation was"* RadiographerBFH-1 l. 84-85

The radiographer do also not see their department manager as one who gets things done, but will when radiographers are following-up. Often the department manager and the radiographer would agree on the end goal of an process, but disagree on how to get their. Being in two different positions could influence on how they each thinks different matters should be handled and how fast the matter should be resolved.

> *"Taking action is not the trait which describes my department manager, but with a follow-up it can speed up the process. We rarely disagree on the goal of a process, but we often disagree on how to get there, and how fast we should get there"* RadiographerBFH-1 l. 27-29

The situations for the two department managers is different and so are the perspectives at which the radiographers view them. The reasons for the differences between the department managers and how they got there will be discussed in section 10.

The advantages of the hospital merger

Having employees at two departments enables the management to move manpower from one department to the other. This could be relevant on a day when not enough people are at work at one department, with the other department have manpower to spare. Whether or not

resources is allocated, the professionals values being told how the situation is at the present day. Are there any sick colleagues, causing some to transport themselves to the other department in order to help. Not being informed on the status of how many employees are at work each day could lead to confusions. Some days manpower are transferred from one department to the other, and other times it is not. The lack of knowledge combined with the inconsistency of getting help from the other department leads to radiographers lacking an overview of what is happening at their department.

> *"... and I don't understand what the thought behind it is, because they can't spare anyone from Bispebjerg. Yesterday we got two from Bispebjerg to help out"* RadiographerBFH2 l. 185-187

> *"... and we have had less people today than we had yesterday. People can't see continuity in that"* Radiographer l. 191-192

The problem is the management are not informing the professionals on what is going on at the department. If the professionals are not told what is happening they begin to imaging scenarios instead. Whether they care about the professionals or not which is the beginning of a vicious circle of distrust.

> *"I would be able to understand if Bispebjerg had none to spare in order to help us. Just tell us, also without anyone asking"* RadiographerBFH-2 l. 197-198

In situations where a department is lacking the manpower to occupy all the medical imaging room to care of patients, one or two radiographers my be assigned as 'fliers' (flyvere in danish). The fliers are responsible for helping out wherever they can, which can be a difficult and tiring position to be in. On the day I interviewed one of the radiographers I were told one of the radiographers had been assigned as a 'flier' and hand to look after 4 different rooms. That is a lot of work, responsibility and can be frustrating not knowing whether it could have been avoid if the other department was able to send help.

> *"You quickly get days as a day today, where you just think "fucking christ". You should try ask X today how he feels. I don't think he is having a lot of fun"* RadiographerBFH-1 l. 178-180

> *"4 room does he have responsibility for, since he is the only one without an assigned room… I just don't get it, it must be because Bispebjerg can't afford to send any over. What they did yesterday when we had people sick was to send two from Bispebjerg"* RadiographerBFH-1 l. 184-187

Previously both department had a daily manager assigned to each department. Being a daily manager lets the manager know how the days before have been, and how a typical situation is at the department. Today the three department managers takes turn being the responsible manager at Frederiksberg Hospital. The lack of continuity could lead to the manager of the day to miss what has been happening the previous days or last week.

> *"We used to have a daily manager, it is all because we don't have a daily manager any longer"* RadiographerBFH-2 l. 82

Radiographers on research, education and developing practice for radiographers

The merger affects practice at different points. The management is letting the radiographers chose for themselves whether they like to participate in research or not. The merger has increased the number of radiographers available and thus increased the odds of radiographers participating in research. Participating it not part of the radiographers job description but on their interest in doing research.

> *"It it not like someone are just doing research because they are told to, but rather according to the individual's interest how much you want to do research, and I may do more research than most. But it is not part of my job description, as a formal part of my position, but I got my fingers deep in research and collaborates a bit with our research radiographer"* Radiographer2FRH l. 59-64

The relevant part of research for radiographers are the usefulness in practice. Doing research in order to be able to publish papers are not as important as doing research to improve the protocols used in practice or optimizing workflows.

> *"The research has to be relevant for the department. I don't know if it is possible to do more of that kind of research?"* Radiographer1FRH l. 351-352

In order to improve the professional competencies, at least within MRI, it is possible to follow a master's program in Norway. The master's program is part time and takes 4 years in all. Normally you complete 2 years, and then complete the last 2 years after some time. The radiographer has to apply to the medical imaging department, since it is the department who pays for the education. The master's program is very beneficial for the radiographer providing tools and competencies highly useful during the daily work.

> *"The two years the first 2 years I have completed has given me a lot, also during my daily work. A better overview and competencies in order to optimize protocols"* Radiographer2FRH l. 75-76

Competencies can also be gained through sharing experiences with others. Talking and sparring on how to solve a specific issue can be greatly beneficial from my own experience. The question is how to change the culture, to be talking more about work than about what happened last weekend?

> *"Well, as colleagues we aren't very good at sharing information and knowledge… I would like to become better at it…"* Radiographers2FRH l. 364-367

It is also about being reflective in the daily work. Some days may consist of routine examinations. By performing routine examinations to large degree can make you go on autopilot from time to time. What is being done, and why is it being done that way.

> *"Yes but also being when sitting by the scanner and say; "hey what is this, and why are we doing it like this? Just something, to talk a bit more"* Radiographer2FRH l. 371-373

Radiographers and task gliding

Because of the increased workload for the radiologists (described in section 7.1.4.1) radiographers are helping out by performing some of the tasks which are under the radiologists responsibility. Regarding MRI som radiographers have helped the radiologists assign the protocols used to scan patients. This is only related to simple and routine examination. This type of tasks being performed radiographers but was once being handled by radiologists is called 'task gliding' (opgaveglidning in danish). Through the process of task gliding

professions can acquire new tasks, expand their professional field and increase their professional competencies.

> *"Absolut, it is 100% a job fob for doctors, and it is very limited what examinations we may assign protocols to. It is only standard examinations, it is knees, cervical and lumbar examinations. If in any doubt, you leave it. So it is only examinations within those three categories, but it can quickly become more"* Radiographer2RFH l. 135-139

Performing some of the jobs belonging to the radiologists are seen as being okay. From my personal perspective, accepting these tasks from other professions is how your own profession develops and expands regarding competencies.

> *"... a lot is happening, but I think it is fine that we undertake some tasks"* Radiographer2FRH l. 144-145

Undertaking others tasks to increase the radiographers professional competencies can be a good idea. But if the radiographers do not have time to complete their own tasks it does not matter. One of the radiographers said they have implemented x-ray protocols for children at Bispebjerg. Children are more sensitive to x-ray than adults and need to have the amount of x-rays they are exposed to reduced. The x-ray protocols have not been implemented at Frederiksberg, but could be if the responsible radiographer with the competencies to do it, had the time needed.

> *"For example… at Bispebjerg in the Canon room they have all the settings to examine a hand. Just below they have the settings for children. At Frederiksberg we just change the settings from the adult's protocol. I could implement it (at Frederiksberg), but it requires I have the time for it"* RadiographerBFH-2 l. 61-63

Planning for the radiographers to implement such changes at the x-ray protocol stated above can easily be disturbed by people calling in sick. When I used to work planned tasks were often delayed or postponed due to unforeseen incidents. Usually when colleagues are sick radiographers takes on the responsibility and helps out in the various medical imaging rooms and setting aside what they had planned. Sometimes getting the time to perform these protocol

optimizations can be so hard that they have to set aside their colleagues need for help and focus on their own task.

> *"X and I had gotten this day together so we could learn each others protocol control, and it has to happen today, so we don't end up in the situation where one of us is gone a month and then we don't get it done"* RadiographerBFH-2 l. 67-69

> *"Then we have a day as today, we got 700 people calling in sick, but we had to do it anyway, and the department just had to do without us, because we are not getting this day again. I haven't been working with X for 7 months"* RadiographerBFH-2 l. 71-73

> *"What I would usually do, was to postpone what X and I had to do, so we were enough people at the department… you are not getting time for the things we have to do, we are placed in the same medical imaging room and the management counts on us figuring out what to do"* RadiographerBFH-2 l. 202-206

During a previous interview with the management I was told the radiographers had time to optimize protocols during the day, when asking the radiographer he responded he did not know anything about that decision, and that he would never get the time to optimize the protocols.

> *"I don't know anything about that. I don't know about CT, but I can promise you I would never have gotten the time to optimize protocols, I can promise you that"* RadiographerBFH-2 l. 225-226

Why the radiographer had not heard about the agreement of radiographers having time during the day to optimize their protocols is not know. It will discussed in section 10 what could be the reason for the radiographer not getting the time he should have to optimize protocols during the day.

Summarizing the key values for the radiographers

- More time to optimize protocols during the daily work
- A feeling of being unable to develop their competencies according to their own will
- Different work routines at the departments
- How to structure work, when working at two departments.

- Different cultures between the departments
- Having the department manager participating in practice
- How is work shift, competencies and freedom within the radiographers field affected
- Focus on the present instead of the future

6.1.4.3 Secretaries

Changing competencies because of the new team structure

Interviewing a couple of secretaries at Bispebjerg & Frederiksberg Hospital, I discovered what matters the most since implementing the new team structure is their competencies. Before the team structure was implemented every secretary booked medical imaging examinations for all the modalities present at the department. they were very versatile, being able to help radiographers working with the different modalities. After the team structure was implemented secretaries were also attached to a specific team based on a modality (CT, MRI, DR teams). Being attached to a single modality have had the consequence for the secretaries that they are unable to book examinations to the other teams modality. A secretary belonging to the CT team only books CT examinations etc.

> *"Before we got this new structure, where we came into a team, we spend a lot of time on supplementing each other in every field, and book examinations for all the modalities, except MRI. But X and I booked ultrasound, CT, everything. Suddenly we are in teams and we are not allowed to touch each others things. I that sense i has been very messy, and we haven't got any explanation why"* SEK-BFH2 l. 46-50

The team structure has had the consequence of making the job uninteresting for one of the secretaries. Reducing the work she is allowed to do simplifies her job, making it trivial. The secretary have not been assigned to a team and are sitting at Frederiksberg Hospital booking ultrasound, x-rays of bones and thorax (chest and lungs).

> *"For me, who have been an all arounder with everything - CT, MR, ultrasound, everything, are suddenly taken aside because of the new team structure, which I'm not a part of. I'm booking ultrasound, x-rays of bones and thorax, and is not interesting at all"* SEK-BFH1 l. 59-62

Being excluded from the teams structure has made her lose her competencies in relation to MRI and CT. Not being part of the secretary practice and the following the changes happening to the practice make her unable to help her colleagues since she now lacks the competencies to help.

> *"But it make all my competencies regarding MRI and CT to be irrelevant, and I don't know what my colleagues are doing in their job"* SEK-BFH1 l. 63-65

Having lost a great deal of their competencies, the secretaries are searching for new competencies to acquire in order make their job worth doing for their own sake, and to make them valuable for the department.
The secretaries are made responsible for buying general supplies for the department. Previously one of the secretaries were only responsible for buying office supplies, but are now expanding the type of supplies she will be responsible for.

> *"Buying, you have been responsible for that all along?"* SEK-BFH2 l. 206

> *"Only office supplies"* SEK-BFH1 l. 208

> *"Alright, so now get other thing as well, we need to find a structure to that"* SEK-BFH2 l. 210

The other secretary had never tried to buy supplies of any kind, and has asked for help to learn how to do it.

> *"I have never been responsible for buying supplies, it is a completely new field to me. We have asked for courses on how to buy supplies, but nothing has happened"* SEK-BFH2 l. 255-256

They did ask their closest leader about assistance regarding buying supplies, and were told an employee at the other department who are responsible for buying supplies for her department. This is a positive outcome of the merger between the medical imaging department, being able to draw on the resources available at both departments.

> *"And our closest leader mentioned X at Bispebjerg Hospital who is responsible for buying supplies at the department"* SEK-BFH1 l. 269

It is however important to differentiate between the different types of supplies being bought. Ordering paper is one thing, ordering catheter which there are numerous various of, and it important of buying the correct one. It required knowledge on how the supplies are being used in practice and the different types being used.

> *"And there is a big difference between buying A4 paper, and then having to order three-way stopcocks"* SEK-BFH1 l. 290-291

At the present time, the department managers are responsible for buying medicine for the department. However, seeing the secretaries are made responsible for buying a larger variety of supplies, it may be a matter of time before secretaries also buys medicine. If it should happen secretaries are made responsible for buying medicine, it would put them in a more powerful position at the department, making them more valuable for the department.

Working as secretaries at a multi-sited hospital

Secretaries is a profession which is in contact with almost all the other professions at the hospital. The secretaries responsible for booking patients for MRI and CT examinations are seated at Bispebjerg Hospital. The secretaries are responsible for booking the patients for both Frederiksberg Hospital and Bispebjerg Hospital. The interviewed secretaries had bad experiences with having all the secretaries for a specific team gathered at one of the departments, instead of having secretaries from all the teams at both departments.
Each Monday the secretaries at Frederiksberg experienced CT was heavily overbooked by the secretaries in the CT team stationed at Bispebjerg Hospital. All the hospitalized patients who have been at the hospital over the weekend have to CT scanned and the secretaries have to book them. This causes the radiographers at Frederiksberg to be 30-45 minutes behind schedule.

> *"It is my impression, but I'm not sure it is correct. But every Monday, and it is every Monday, the CT scanners are overbooked. It is because of all the hospitalized patients from the*

> *weekend, which they have to put into the program, which makes us 30-45 minutes late every Monday"* SEK-BFH2 l. 321-324

The secretaries responsible for the booking are not present at the department at Frederiksberg at which they also book. Booking patients at a different hospital makes the secretaries unable to see how well their booking structure is working. In order to being able to adjust the bookings to the Frederiksberg Hospital's structure, having knowledge on how busy it can be and which days are the busiest. It is not just hospitalized patients the secretaries need to be aware of, but also the acute patients which are an unpredictable factor in the field of radiology, and in general at hospitals.

> *"It seems as if something is wrong with the planning and the bookings. It is like the secretaries at Bispebjerg don't understand they that the hospitalized patients from the weekend are to be booked on Mondays and Tuesdays"* SEK-BFH2 l. 330-333

Summarizing the key values for the secretaries

- Issue secretaries from one team are placed at only one department
- The team structure makes the secretaries lose competencies
- Important to implement task gliding

7 Centralization in health care

In this section the DHA's actions with the intent to increase centralization will be analyzed and discussed based on news articles, various published documents and research articles on the subject of centralization. Why has an increased centralization happened and have there been challenges during the process.

7.1 Centralization in Denmark through speciality planning

An increased centralization has been implemented in Danish health care. Several years back DHA implemented the Speciality Planning in order to improve the quality of the public health care sector and offer equal health care in all of Denmark (SST, 2017a).

The speciality planning was, and is, the primary tool by the DHA to improve health care through increased centralization and began in 2005 with the danish parliament passing on the The Health Act enforcing the strengthening the position of DHA (VIVE, 2018). The Health act became active 1st January 2006. Previous DHA could issue guidelines which the hospitals could follow, but had no obligations to. After the initiation of the Health Act DHA gained a stronger position of power enabling DHA to assign and withdraw licenses perform specialized medical functions - essentially deciding where the professionals are able to work if they want to work within a specific field of expertise. DHA is the highest health care authority due to the Health Act. It should be noted DHA is in power because the Danish Parliament provided DHA with the power to control the implementation of speciality planning. DHA may be the highest authority within health care, but DHA is only in a position of power because the Danish Parliament put DHA in that position.

The reason for providing DHA with a central power position regarding speciality planning was to better coordinate the speciality planning and deciding where to place the specialized treatments (Ibid.). Next I will argue the pros and cons for implementing speciality planning. Some challenges has also appeared during implementing speciality planning which will be analyzed and discussed as well in order to reflect on the process.

7.2 Perspective on the increased centralization through research

The DHA's argument for why speciality planning is going to improve the quality in health care is based on the saying; "practice makes perfect" (SST, 2017a). By centralizing medical specialities at fewer hospital fewer hands will perform the specific speciality and those few will gain more experience in their specific field of expertise. Though it might make sense by logic, research performed on the relation between volume and outcome should not be used as a reliable guide to action (Harrison, 2012). Most of the studies are based on elective or planned care and not acute and emergency care (Ibid.) Receiving acute patients requires a larger capacity in order to being able to respond at all times in contrast to planned care. Centralizing medical specialities may also be beneficial at a short-term policy. Considering whether specialized functions should become decentralized once they become routine is worth considering. On this account it should be noted how a specialized function is defined. Is it because it requires a high level of competencies to perform the specialized function, or is it because the specialized function requires the collaboration of different specialized departments at a hospital? . The type of quality the speciality planning is improving primarily is "effective treatments" and "cost efficiency". A study performed at the Department of Urology at Aarhus University Hospital was performed based on the "recent healthcare reform in Denmark that forced hospitals to merge" (Halkjær & Lueg, 2017 p. 823). Cost efficiency were measured by length of patient stays and quality of care was measure by readmissions rate (readmissions is patients being rehospitalized). The study showed readmission rates improved while efficiency did not improve. The reason for this was the department "prioritized patients by hospitalizing critical cases for longer periods to reduce readmission rates" (Halkjær & Lueg, 2017 p. 832). This was in conflict with the DHA's interest of improving efficiency while reducing resources (Ibid.) Support from the professionals working at the departments is another factor for increasing the quality of health care services. If the professionals do not support the changes implemented they become anti-programs, working against the changes which are trying to be implemented. This puts the professionals in a position of power where they decide to which degree health care quality will improve based on the changes implemented.

The doctors working at the hospitals report an increase in the specialized part of the health care sector. At the same time some worried the increased quality at specialized hospitals comes at the price of reduced quality of the non-specialized hospitals (VIVE, 2018 p. 70). Too much focus on increasing the quality of specialized medical functions could take focus of the quality

of routine treatments. It is important to have on eye on both specialized and non-specialized functions.

Some research argues specialized functions may be centralized until they become routine functions (Harrison, 2012). This could be true, but depends on which of two scenarios is present. Scenario one: A specialized function can be called a specialized function because it requires very high competencies related to that function. Scenario two: Or it is a specialized function based on its complexity and need for collaboration of several clinical departments at the same hospital. Scenario one can be decentralized once the competencies required have been generalized and more are sufficient enough to handle the function. Scenario two is more difficult since it is dependent on the setup of the clinical departments of the hospital assigned the specialized function. In order to decentralize the specialized function other hospitals are required to have the same configuration of clinical department as the hospital original assigned the specialized function.

7.3 Consequences for the health care sector

Centralizing through the speciality planning is not without consequences. Over the years several hospitals have closed all over Denmark. From the period 2007 to 2016 the number of hospitals went from 40 hospitals in 82 locations to 21 hospitals in 68 locations (Christiansen & Vrangbæk. 2018). The reduction of the number of hospitals naturally increases the distance between the remaining hospitals. Centralizing too many specialized functions will undoubtedly place some citizens at a geographical disadvantage. Often with emergency patients time is an essential factor, and it is essential to be able to reach the needed treatment fast.

Another consequence is how the centralization creates an uneven playfield for attracting professionals to work at the hospitals. Highly specialized hospital is sure to attract more than the non-specialized hospitals (Politiken, 2015). This could also contribute to how the healthcare quality may increase at specialized hospitals, while non-specialized hospitals might be subject to a slower professional development.

Lastly, the regions may see the DHA as being too powerful and influential regarding hospitals practices. Based on the power granted to DHA through the Health Act, the regions may argue their case on matters of controversies, but DHA has the last saying in the end.

7.4 Centralization from a national level to a regional level

The DHA issued general guidelines regarding speciality planning a national level. Each region were then assigned the task of implementing their own local speciality planning in order to fulfil the demands from the national guidelines on speciality planning. Capital Region initiated their Hospital Plan as a response to the guidelines (Christensen & Vrangbæk, 2018). This correlates with the *model of translation* (Law, 1986). The speciality plan was implemented by the DHA on a national level, but in order for speciality planning to be implemented at a regional level the regions must "pick up the ball" and decide how they want to implement speciality planning in each region based on their individual circumstances.

To show how the implementation of speciality planning proceeded regarding the regional level, the next section will be based on the case of Capital Region's Hospital Plan 2020. Capital Region have been the prominent region throughout this project, and will continue to be so.

8 Multi-cited hospitals in Capital Region

As a consequence of speciality planning being implemented by DHA, Capital Region had to develop its own answer to hospitals in the region could become highly specialized.

In 2015 Capital Region published their Hospital Plan 2020 as a response to the DHA's guidelines on speciality planning. Hospital Plan 2020 focuses primarily on cost efficiency and improving the professionals competencies at the hospitals through specialization (Regionh, 2015). In order to reduce costs hospitals were merged in pairs and reducing duplicates at the administrational levels (Ibid).

8.1 Rationalization as part of the merger process

Several studies support the claim on rationalizing being one of the reasons for merging hospitals (Fulop et al., 2005; Ahgren, 2008). One study discovered one of the mergers had consultation document all emphasizing rationalization (Fulop et al., 2005) while another study investigated the basis for being able to rationalize and improve the quality of through hospital mergers (Ahgren, 2008). The article stated the correlation between hospital mergers and being able to achieve rationalization and improved quality of care had not been "systematically evaluated, either in Sweden or internally (Ibid. p. 93).The article was from 10 years ago, but I

was not able to find other research papers systematic investigating on the correlation between hospital mergers, rationalizing and improved quality care.
Capital Region states through the Hospital Plan 2020 the potential of rationalizing for 130 million dkk. Through the hospital mergers. The 130 million dkk. is based on experience from the first hospital mergers (Regionh, 2015). I would argue these numbers cannot be used to predict the potential for rationalization based on a lack of research. Hospital mergers and multi-sited hospitals are not done very often and more experience is needed before concluding how much can be rationalized through these hospital mergers.

8.2 How mergers affect professionals and practitioners, and the other way around

The research done in the field of mergers between hospitals is not overwhelming. However, some studies have been conducted showing what the causes for frustrations (Fulop et al., 2005), professionals attitude towards the management and the professionals work satisfaction prior to the merger (Shirley, 1973) and experience from Sweden on implementing multi-sited hospitals through mergers just as in Capital Region (Ahgren, 2008)
The professionals trust in the management prior to a merger between hospitals is important. Experience from a hospital merger showed documented trust in the management as well as the level of satisfaction with the pre-merger conditions increased the chances for the professionals to accept the merger. Practitioners trust towards the management of the merged hospital did not matter. The practitioners were more focused on the competencies, honesty and fairness of the management (Shirley, 1973). The results are from study quite old. It does however revolve around the relationship between the professionals/practitioners and the management. Practitioners trust is earned based on how the management handles the cultural mechanisms associated with an organization's primary mechanism (Kulvinskienė et al, 2009). These mechanisms concerns themselves with how managements react to incidents, being a role model through teaching and coaching and how the management distributes rewards and status (Ibid.). These mechanisms are determining how the management is branding itself and how the professionals and practitioners are viewing the management.
Fulop et al. states "*... it is evident that mergers is an evolutionary process with 'ambiguous boundaries*'" (Fulop et al., 2005 p. 129). The ambiguous boundaries referred to the uncertainty

of when a process starts and when it stops (Ibid., p 120). It is important for those behind the hospital mergers (Capital Region) to be aware of the of blurry points in time regarding when the merger is starting and ending. Not knowing when a implementing process with such a large impact on ones practice starts and ends can cause stress and frustrations from the changes and the uncertainties (Fulop et al., 2005). Having to treat the same number of patients as before the merger may can prove difficult, also having to consider how the merger will affect oneself.

9 What is important for the hospital practice at a medical imaging ward? - Case study at BFH

The department management is constituted by a leading management, department management, radiographers, radiologists and secretaries as the primary professional groups. In 2012 Bispebjerg and Frederiksberg hospital were one of the first hospitals to merge in Capital Region.

After the merger MID implemented the new team structure affecting the radiographers and the radiologists had a team structure based on specific types of examinations (musculoskeletal, abdominal and neurological). The radiographers had a department manager responsible for each team, while the leading radiologist had the primary responsibility to the radiologists. The radiologist teams each have a radiologist responsible for the specific team, but the daily challenges has to be handled by the radiologists themselves.

The department structure can be seen on figure 10 below.

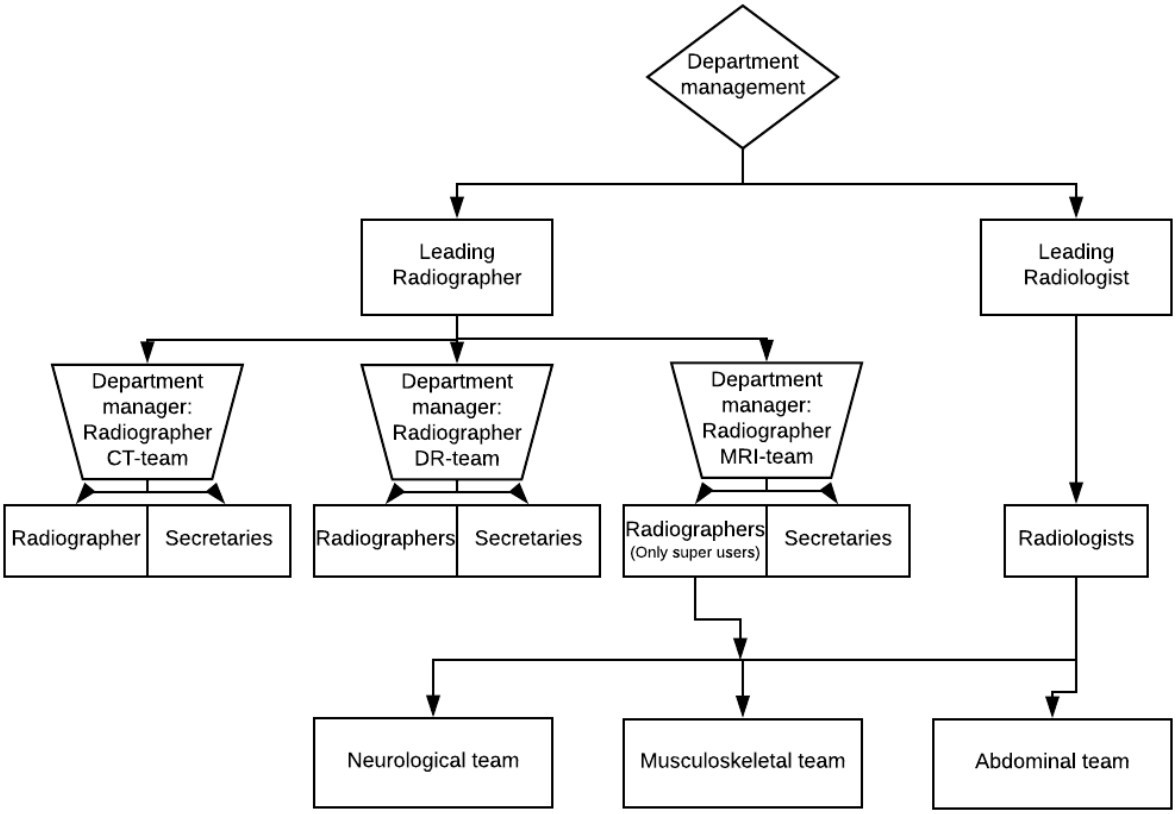

Figure 10. Medical imaging department structure.

The management, radiologists, radiographers and secretaries each have different places in the department structure and the tasks they perform related to their professions differs. The leading management and the department's values are overlapping and are therefore been seen as one group. Below are the different perspectives, opinions and values which are important for the different groups listed.

Management:

- Strengthen the professionals competencies.
- Balancing the needs from the executive board and the professionals/practitioners
- Improving the wellbeing of the professionals at the department
- Performing research at the department and including the professionals in it.
- Developing the professions through task gliding
- Setting time aside for the radiographers to do special tasks during the day.
- Being part of the practice with the radiographers.

- Bringing the professionals from the two departments together.
- Being part of the radiology in Capital region
- It should be fun and challenging to work and not all about production

Radiologists:

- The quality of their work
- Type of patient intake affects practice
- Increasing production demands too much can harm the practice
- The relationship with other department practitioners is important to practice
- Working conservatively
- An understanding from the higher administration on what is going on in practice

Radiographers:

- More time to optimize protocols during the daily work
- A feeling of being unable to develop their competencies according to their own will
- Different work routines at the departments
- How to structure work, when working at two departments.
- Different cultures between the departments
- Having the department manager participating in practice
- How is work shift, competencies and freedom within the radiographers field affected
- Focus on the present instead of the future

Secretaries:

- Issue secretaries from one team are placed at only one department
- The team structure makes the secretaries lose competencies
- Team structure when working at two departments
- Important to implement task gliding in order to replace lost competencies

As seen above, the groups have different perspective on what is important, based on what they experience during work, and also how they work. And still, their values are based on wanting to increase their competencies. The management wants to include the the professionals in research and have them take on tasks from other professionals or practitioners, which could help improve the overall level of health care at the department.

The radiologists are working conservatively in order to not lose their professional competencies. Radiographers want to work on optimizing protocols and being part of research. Lastly the secretaries have lost competencies after becoming part of the team structure, and are actively seeking new tasks to caretake at the department.

Through the interviews performed I was informed the management had distributed the man hours, equivalent to a research radiographer, among the radiographers during the daily work. These man hours should be used to optimize protocols and improve the practice of radiographers. Unfortunately, some factors are complicating these attempts to increase the professional competencies at the department. Radiographer's work are very unpredictable making it difficult to plan ahead. If some are sick, regardless of what some may have planned, it might get cancelled due to having to take care of the patients at the department instead. It should be noted the radiographers spoken to had no idea about the arrangement, which seems odd.

9.1 Perspective on the merger process

Different cultures, work routines and physical environment are also interfering with how to work. A great deal of the radiographers work routines are based on practice. Being in a new environment and having to adjust to how others work routines are can reduce the efficiency of work. Having the same work routines at both departments would solve a some of the issues. Radiologists on the other hand have a more conservatively approach to their work and prefers using the work routines they have always used. If they start working in new ways they would have to spend time learning the new work routines, which they have no time for during work. The relationship between practitioners at MID and at other clinical departments is also part of the established work routine. They have established a common form for communication providing better mutual understanding.

During a hospital merger, the management needs to be aware of this controversy on how to work. Each professional group and the practitioners are working differently and the management need to consider the circumstances for each group.

9.2 How to implement new team structure

After the merger of the MIDs, the management implemented a new team structure to accommodate for the increased number of employers with approximately the same number of managers. The team structure could be seen as an extension of the increased centralization. Radiographers being in teams make them focus on a single modality. This would improve their competencies with that modality, but the competencies with the other modalities would decrease at the same time. Previously, when I used to work at a MID, you could work with MRI or you could work with all the other modalities at the department. You would usually wait working with MRI since had not yet gotten the broad competencies within the field of radiology. With the introduction of the team structure, it would seem as the culture is changing and having high, but narrow field of competencies available is the future. The other possibility for implementing the team structure is to get a better management structure. Regardless of the reason for the new team structure, the management seems to agree on team structure is for the better. Based on one of the interviews with a radiographer, it should be asked whether the department was ready for implementing the team structure. Had all the scenarios been thought through where issues could occur?

The secretaries are especially struck by the team structure in relation to their professional competencies. One of their advantages used to be able to work on a across the whole department and working with most of the modalities present at the MID. Now the secretaries are overtaking as many tasks as they can in order to feel worth having at the department, so to speak.

The radiologists used to be the other department from time to time in order to help. Based on an interview with on the the radiologists it is a thing of the past. To be able to be as efficient as required the radiologists are staying at their own department, where they are able to the most efficient. In order to be efficient radiologists need to know the setup of his or hers computer, and knowing which book to search for and to find it when looking for something specific.

Before implementing a new team structure (or something equivalent) the professionals and the practitioners should be involved. Firstly to create a debate on how to implement these new work structures, and secondly to create awareness of the possible consequences or impact these

changes may have on the work structure. It is properly a lot of work, but implementing changes as large as these without preparing can have dire consequences.

9.3 The role of the department manager

Previously the department manager being part of the daily practice was perceived as a truism. That was how the department managers and the radiographers perceived role of department manager. Today the department managers have assigned so many different tasks they rarely have time to help out radiographers, unable to act as a buffer at the department. Meetings and planning are taking up much more time than it used to, which affects the radiographers. The radiographers feel disconnect with the their department managers. What are they doing in their offices, and why do they not help when in need?

In order to collaborate with the radiographers, some of the department managers are sitting down with a radiographer planning the work structure for the upcoming week. Who are going to work together and which rooms do some of the radiographers need to be placed at in order to maintain their competencies. This is a sign of decentralization, transferring some of the tasks from the department management to the radiographers. Some radiographers are objecting, saying it is not their job or responsibility. The leading radiographer perceives that negative attitude as crippling their profession.

9.4 Centralization and decentralization related to radiographers

Back in the days radiographers used to have competencies related to most of the modalities at a MID. This called for the use of super-users, since the department needed some who were highly competent with the various modalities. With the new team structure radiographers are assigned to a specific team and modality resulting radiographer's competencies coming more narrow, but also higher at the same time - just like a super-user. Based on the increased number of competent radiographers related to each modality, the leading management is working on decentralizing some of the tasks usually performed by super-user. The technologies used are advancing faster and faster and the leading radiographer thinks radiographers need to take on all the tasks they can in order to stay relevant and competent. An example is related to reconstructing CT scans (processing the produced medical images in order to gain as much from the examination as possible). From my fieldwork and experience from my work and

previous project, radiographers have mixed opinions towards the attempt to decentralize some tasks. Some are happy to join and being able to challenge themselves on a professional level, while other do not see the decentralized tasks as something they should do.

9.5 Improving the professional competencies through other means than centralization

One of the main arguments for the increased centralization is how centralization improves professional competencies based on the mantra "practice makes perfect". I argued earlier in the project how there are no evidence based support for the claim and that it is properly more based on a sense of logic than science. There are however other approach to improve the professionals competencies. Involvement in research leads to needing to think in new ways - having to use the competencies available to solve a potential problem and possible gaining new competencies through the experience. Participating in courses or further educate yourself is another option. Sparring in practice and through task gliding. These other methods on improving the professional competencies are happening at hospitals all the time, and those the administrative levels should invest and facilitate these processes.

10 Conclusion

Problem formulation:

How does centralization based on speciality planning in Danish Health care affect the health care sector on a national and regional level and in practices at hospitals, while considering power as a tool for implementing changes.

From my practical experience as radiographer and my experience achieved through my previous project, providing a unwavering conclusion is very difficult. The speciality planning is just one among several large implementations to have occured in the previous years in Capital Region. One of the most recent beside Speciality Planning is the new Electronic Health record IT-system, which have brought along some commotion. So singling out a specific implementation process and stating it is responsible for affecting the health care system in

specific ways is unwise. These implemented processes are taxing for the workers and decreases their efficiency. Over the years, increased demands for production have had its effect on those working at hospitals (Wiese, 2016). The consequence of introducing a culture of being afraid to make mistakes, because there is no room for making mistakes in these times of production. If mistakes do happen, you are already behind schedule. This situation where those working at hospitals are feeling the consequences of these implementation process is not how it should be, since they are not the once deciding to go along with it.

Nonetheless, when DHA implemented speciality planning it caused ripples to spread throughout the health care system. DHA is responsible for speciality planning on a national level. Through the process of implementing Speciality Planning the Danish Regions are forces to abide by the changes to come. On a regional level the five regions are each responsible for implementing speciality planning into their respectively region.
In the case of Capital Region, the Hospital Plan 2020 was implemented. This lead to hospitals being merged together, reducing the number of administrative employees by removing duplicates, causing a greater burden for those left. The department managers at the medical imaging department have been burden to such a degree by more work, some have to omit participating in their professions practice, even though it was part of the organizational culture at some point. Creating this divide between management and the professionals leads to a lack of common understanding for each other's work. During stressful days this lack of common understanding can lead to frustration, based on not knowing what the other part is doing. Professionals not knowing what their management is doing is most often the case than the other way around..

When implementing these changing one should differentiate between the different professions and practitioners at the department. Defining how each group’s work routines and how implementation processes will affect the professionals and practitioners in different way, depending on their work structure and values. It is also important to decide whether you want specialists or generalists working at the hospitals. Speciality planning is moving towards having more specialists working in healthcare, which is great. The backside is however, some flexibility is lost since the field of health care, since the field of expertise the professionals and practitioners can work within is narrowing down.

Based on the project and my own experience, consequences are not equal for everyone. Those sitting at the administration levels do not face the consequences, as those working in hospitals, when implementations processes go wrong and or is not successful. How do you measure if the speciality planning is successful? You cannot. And more often than not, from my experience, it is the professionals and the practitioners at the departments who makes these implementation processes a reality by somehow adjusting the changes to their work routines. And it is important hold those who are sitting in powerful positions responsible for their ideas to change health care, however successful it may be. DHA and the Danish Regions are powerful in relation to speciality planning, but they need to pay attention to what is happening at the practices in hospitals and be aware of the consequences the changes they implement are causing.

10. Reflection & Perspectivation

Before beginning on my Master's Thesis I knew the extent of the field I was going into was enormous. The healthcare sector is very complex, constituted by several actors (many who have not been included in the project due to limitation) each with their own interests. At times I got lost because these problematics within the field of health care intertwine greatly, making it hard to separate what implementation process caused specific issues from each other. New Public Management is also having a large impact on the health care system, by increasing the demands for production on the idea that a higher production equals better health care, and by measuring success based on numbers. Fortunately some working at the administrative levels have have become aware of value-based management, focusing more on the kvalitative values in health care instead of kvantitative.

A project investigating how such a thing as the speciality planning is affecting practices at hospitals need to be investigated to a larger scale than a Master's Thesis. Hopefully the findings of this project will make some in powerful positions aware of the issues of implementing changes on national levels or regional levels. A need for preparing the health care for these changes is important since they always seem to overwhelm those receiving the changs.

11. References

Ahgren, B. (2008). Is it better to be big? The reconfiguration of 21st century hospitals: Responses to a hospital merger in Sweden. Health Policy, 87, pp. 92-99. doi:10.1016/j.healthpol.2008.02.001

Callon, M. (1990). Techno-economic Networks and Irreversibility. The Sociological Review, 38(1), pp. 132-161. doi:10.1111/j.1467-954x.1990.tb03351.x

Christiansen, T. and Vrangbæk, K. (2018). Hospital centralization and performance in Denmark—Ten years on. Health Policy. doi: 10.1016/j.healthpol.2017.12.009

Dagens Medicin. (2017). Faglig vurdering afgørende i nye visitationsregler for fedmeoperationer. Available at: https://dagensmedicin.dk/faglig-vurdering-afgoerende-nye-visitationsregler-fedmeoperationer/ [Accessed 20 May. 2018].

Dansk Selskab for Kvalitet i Sundhedssektoren. (2017a). Medlemsorganisationer. Available at: https://dsks.dk/wp-content/uploads/2017/12/DSKS-medlemsorganisationer-04.12.2017-1.pdf [Accessed 20 May. 2018].

Dansk Selskab for Kvalitet i Sundhedssektoren. (2017b). Sundhedsvæsenets kvalitetsbegreber og -definitioner & Metodehåndbog i Kvalitetsudvikling. Available at: https://dsks.dk/wp-content/uploads/2017/01/25_01_2016_kvalitetsbegrebermetoder.pdf [Accessed 20 May. 2018].

Danske Regioner. (2012). Regionerne - Kort fortalt. Available at: http://www.regioner.dk/media/3066/regionerne-kort-fortalt-2011.pdf [Accessed 20 May. 2018].

Flyvbjerg, B. (2004). Phronetic planning research: theoretical and methodological reflections. Planning Theory & Practice, 5(3), pp. 283-306.

Fulop, N et al. (2005). Changing organisations: a study of the context and processes of mergers of health care providers in England. Social Science & Medicine, 60, p. 119-130. doi:10.1016/j.socscimed.2004.04.017

Halkjær, S. and Lueg, R. (2017). The effect of specialization on operational performance. International Journal of Operations & Production Management, 37(7), pp. 822-839. doi: 10.1108/ijopm-03-2015-0152

Harrison, A. (2012), "Assessing the relationship between volume and outcome in hospital services: implications for service centralization", Health Services Management Research, Vol. 25 No. 1, pp. 1-6. doi: 10.1258/hsmr.2011.011027

Kulvinskienė et al. (2009). Factors of organizational culture change. Ekonomika 87, p 27-43. ISSN 1392-1258.

Kvale, S. & Brinkmann, S., (2015). Interview: Det kvalitative forskningsinterview som håndværk. 3rd ed. København: Hans Reitzels Forlag. p. 235-247

Latour, B. (1990). Technology is Society Made Durable. The Sociological Review, 38(1), p. 103-131. doi.org/10.1111/j.1467-954X.1990.tb03350.x

Law, J. (1986). Power, action, and belief. London: Routledge & Kegan Paul, pp. 196-233, 264-280.

Law, J. (1992). Notes on the theory of the actor-network: Ordering, strategy, and heterogeneity. Systems Practice, 5(4), pp. 379-393. https://doi.org/10.1007/BF01059830

Mandag Morgen. (2017). Stigende usikkerhed om sundhed - det mener danskerne. Available at: https://www.mm.dk/misc/stigende-usikkerhed-om-sundhed.pdf. [Accessed 19 May. 2018].

Pedersen, K. M. (2009). Udvikling af et sundhedsvæsen - illustreret ved Vejle Amt. Institute of Public Health - Health Economics, University of Southern Denmark.
2ISBN: 978-87-89021-66-9

Petersen, A. & Huyhn, N. M. (2017). Merging of two hospitals. Student semester project. Aalborg University. Project ID: 266356307

Politiken. (2015). Regioner vil stække sundhedsstyrelsen magt. Available at: https://www.sst.dk/da/om-oshttps://politiken.dk/forbrugogliv/sundhedogmotion/art5574135/Regioner-vil-st%C3%A6kke-Sundhedsstyrelsens-magt. [Accessed 14 April 2018].

Politiken. (2017a). Fedmelægers anbefalinger blev underløbet af Sundhedsstyrelsen. Available at: https://politiken.dk/forbrugogliv/sundhedogmotion/art5896542/Fedmel%C3%A6gers-anbefalinger-blev-underl%C3%B8bet-af-Sundhedsstyrelsen [Accessed 23 Apr. 2018].

Politiken. (2017b). Jordemoder: Der er ingen rationelle argumenter for, at lægen skal sidde bedre end andre. Available at: https://politiken.dk/debat/debatindlaeg/art5884381/Der-er-ingen-rationelle-argumenter-for-at-l%C3%A6gerne-skal-sidde-bedre-end-andre [Accessed 20 May 2018].

Reckwitz, A. (2002). Toward a Theory of Social Practices. European Journal of Social Theory, 5(2), pp.243-263. doi: 10.1177/13684310222225432

Regeringen. (2012). Danmark i arbejde. Udfordringer for dansk økonomi. Finansministeriet. pp. 10-14, 56-57. Available at: http://www.stm.dk/multimedia/danmark_i_arbejde_-_udfordringer_for_dansk__konomi_mod_2020_web.pdf [Accessed 20 May 2018]

Regionh. (2015). Hospitalsplan 2020. Available at: https://www.regionh.dk/Sundhed/Hospitaler/HOPP/Documents/Hospitalsplan%202020.pdf [Accessed 23 Apr. 2018].

Regionh. 2017a). Tidsplan. Available at: https://www.regionh.dk/sundhedsplatform/om-sundhedsplatformen/Sider/tidsplan.aspx. [Accessed 24 April 2018].

Regionh. (2017b). Aftale om Budget 2018. Available at: https://www.regionh.dk/om-region-hovedstaden/oekonomi/Budget/Documents/budget_2018_region_hovedstaden_pdfa.pdf. [Accessed 24 April 2018].

Regionh. (2017c). Værdier for Region Hovedstaden. Available at: https://www.regionh.dk/til-fagfolk/Om-Region-H/fakta/Mission-vision-og-maalsaetninger/Sider/V%C3%A6rdier-for-Region-Hovedstaden.aspx [Accessed 20 May 2018].

Regionh. (2018a). Sundhedsfaglige råd og komitéer. Available at: https://www.regionh.dk/til-fagfolk/Sundhed/Sundhedsfaglige-raad-og-komiteer/Sider/default.aspx [Accessed 22 May 2018].

Regionh. (2018b). Sundhedsfaglige råd og komitéer - Radiologi. Available at: https://www.regionh.dk/til-fagfolk/Sundhed/Sundhedsfaglige-raad-og-komiteer/Documents/Sammensaetninger/RADIOLOGI.pdf [Accessed 22 May 2018].

Regionh. (2018c). Sundhedsplatformen. https://www.regionh.dk/om-region-hovedstaden/denAdministrativeRegion/CIMT/sundhedsteknologi/Sider/sundhedsplatformen.aspx[Accessed 23 May 2018].

Sanjari. M et al., (2014): Ethical challenges of researchers in qualitative studies: the necessity to develop a specific guideline. Journal of Medical Ethics and History of Medicine. pp. 1-6. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4263394/ [Accessed 7 May 2018]

Schatzki, T. (2002). The Site of the Social. Pennsylvania: Pennsylvania State University Press. ISBN: 978-0-271-02292-5

Schatzki, T., K.Knorr-Cetina and E.von Savigny (eds) (2001) The Practice Turn in Contemporary Theory. London: Routledge.

Shirley, R. (1973). Analysis of Employee and Physician Attitudes Toward Hospital Merger. Academy of Management Journal, 16(3), pp. 465-480. doi: 10.2307/255007

Shove, E., Pantzar, M. and Watson, M. (2012). The dynamics of social practice. 1st ed. London: SAGE Publication Ltd, pp. 1-42.

Spradley, J. (1979). The Ethnographic Interview. Harcourt Brace Jonanovich, New York. p. 44-61

Spradley, J. (1980). Participant observation. Belmont, CA: Wadsworth, p. 53-62.

SST. (2017a). Speciale_planlægning. Available at: https://www.sst.dk/da/planlaegning/specialeplanlaegning [Accessed 23 Apr. 2018].

SST. (2017b). Sundhedsstyrelsens historie. Available at: https://www.sst.dk/da/om-os/sundhedsstyrelsens-historie [Accessed 19 May. 2018].

SST. (2017c). Faste sagkyndige rådgivere. Available at: https://www.sst.dk/da/om-os/organisation/sagkyndige-raadgivere [Accessed 19 May 2018].

SST. (2017d). Strategi. Available at: https://www.sst.dk/da/om-os/strategi [Accessed 31 May 2018].

Sundheds- og Ældreministeriet. (2016a). Organisationsdiagram for ministerområdet. Available at: http://www.sum.dk/Om-ministeriet/Organisationsdiagram-ministeromr.aspx [Accessed 23 Apr. 2018].

Sundheds- og Ældreministeriet. (2016b). Sundhedsminister: Ny retningslinje skal sikre korrekt visitation. Available at: http://sum.dk/Aktuelt/Nyheder/Sygehusvaesen/2017/Maj/Sundhedsminister-Ny-retningslinje-skal-sikre-korrekt-visitation.aspx [Accessed 19 May 2018].

Sundheds- og Ældreministeriet. (2016c). Specialeplanlægning. Available at: http://sum.dk/Aktuelt/Nyheder/Sygehusvaesen/2017/Maj/Sundhedsminister-Ny-retningslinje-skal-sikre-korrekt-visitation.aspx [Accessed 20 May 2018].

Version2. (2016). Region H bekræfter: Lægesekretærer ryger ud, når Sundhedsplatformen kommer ind. Available at: https://www.version2.dk/artikel/region-h-bekraefter-vi-fyrer-laegesekretaerer-efter-indfoerelse-sundhedsplatformen-996898 [Accessed 23 May 2018]

VIVE. (2018). Den statslige styring af det regionale sundhedsområde - Analyse af centrale instrumenter. Available at: https://www.kora.dk/media/8447439/11439_den-statslige-styring-af-det-regionale-sundhedsomraade.pdf [Accessed 24 May 2018].

Watson M (2016) 'Placing power in practice theory' in The Nexus of Practices: Connections, constellations and practitioners, A. Hui, T. Schatzki and E. Shove (eds) Routledge, London. Available at: http://mattwatson.staff.shef.ac.uk/placing%20power%20preprint%20Watson%202016.pdf [Accessed 25 April 2018].

WHO. (2006). Quality of Care. A process for making strategic choices in health systems. Available at: http://www.who.int/management/quality/assurance/QualityCare_B.Def.pdf [Accessed 21 May 2018].

Wiese, T.. (2016). Et sygehus er ikke fabrik. Danish Journal of Nursing, 1. P. 18-22.

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