

Master thesis Organisational Design & Development



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The impact of structure on the performance of Multidisciplinary Team Meetings within healthcare networks

A diagnostic approach to the structures of MDTMs within the Breast Cancer network East
of the Netherlands

Name: Olivia Hooghordel

Student number: s1040478

supervisor: dr. D. J. Vriens

2nd supervisor: dr. L. Verelst

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Abstract

This study aimed to diagnose the structural factors affecting the effectiveness of Multidisciplinary Team Meetings (MDTMs) within the Breast Cancer network East of the Netherlands, using the socio-technical theory by De Sitter (1994) on adequate structures. Therefore, this study applied the socio-technical theories on organizational performance to a network level, adding on to the more descriptive literature on structural determinants for network effectiveness from social-network theory. Through qualitative methods, including semi-structured interviews and document analysis, the study compared the desired structure of MDTMs with their actual structure to identify a potential gap, and investigate whether the current issues within MDTMs relate to the structuring of these meetings.

Findings revealed that both the Breast Cancer network and the ARTZ network (together forming the Breast Cancer network East of the Netherlands), despite their different levels of formal establishment, achieved their primary goal of providing optimal, personalized treatment plans for patients. The study identified that maintaining low values in structural parameters such as functional concentration, differentiation, specialization, and separation of tasks positively influenced MDTM effectiveness. The results generate practical implications, suggesting smaller, self-autonomous networks to optimize MDTM effectiveness. Theoretical implications highlight the utility of socio-technical theory in analysing network-level structures.

Content

| | |
|---|-----------|
| 1. Introduction | 4 |
| 1.1 Background | 4 |
| 1.2 Research problem and objective | 5 |
| 1.3 Relevance | 7 |
| 1.4 Thesis outline | 8 |
| 2. Conceptual framework | 8 |
| 2.1 Conceptual model | 8 |
| 2.2 Healthcare Networks | 9 |
| 2.3.1 Goals of the regional MDTMs | 13 |
| 2.4 Organizational Structures | 15 |
| 2.4.1 Adequate MDTMs structures | 18 |
| 3. Methodology | 22 |
| 3.1 Research design | 22 |
| 3.3 Data methods & sampling | 23 |
| 3.4 Operationalization | 24 |
| 3.4 Data analysis | 28 |
| 3.5 Research ethics | 29 |
| 4. Results | 30 |
| 4.1 Actual situation of the MDTMs in terms of goal realization | 30 |
| 4.2 Actual situation of the MDTMs in terms of structure | 32 |
| 4.2.1 Functional concentration | 33 |
| 4.2.2 Differentiation of operational tasks | 34 |
| 4.2.3 Specialization of operational tasks | 36 |
| 4.2.4 Separation of regulatory and operational tasks | 36 |
| 4.3 Final results | 38 |
| 5. Conclusion | 38 |
| 6. Discussion | 39 |
| 6.1 Practical implications | 40 |
| 6.2 Theoretical implications | 42 |
| 6.3 Limitations & recommendations for future research | 43 |
| 7. References | 44 |
| 8. Appendixes | 52 |
| Appendix 1. Final version of the interview guide (in Dutch) - Interview 1 & 2 | 52 |
| Appendix 2. Final version of the interview guide (in Dutch) - Interview 3 & 4 | 56 |
| Appendix 3. Interview invitation (in Dutch) | 61 |
| Appendix 4. Interview consent form (in Dutch) | 64 |
| Appendix 5. Coding scheme (translated to English) | 65 |

1. Introduction

1.1 Background

Modern societal challenges have changed the ways in which organizations can provide services, and require new ways of working. This especially seems the case in the healthcare sector, where demands for quality care are rising and expenditures are increasing, while simultaneously high value service delivery is lacking (Peeters et al., 2022). Collaborating within networks is seen as a solution to overcome these issues and to optimize healthcare delivery. Healthcare networks are established to achieve the common goal of providing effective care, and contribute to positive results for patients, organizations and society (Popp et al., 2014; Van der Weert et al., 2022). Through linking healthcare providers, payers and other relevant stakeholders, patient information can be communicated and exchanged, increasing the quality and effectiveness of healthcare (Rajamani & Iyer. 2023).

The Oncology Network East of the Netherlands is an example of a healthcare network, in which 8 hospitals and one radiotherapy group bundle their forces to provide quality care in a fast paced society. Through regional partnerships, goals of providing each and every cancer patient with a fitting treatment plan, no matter where the patient presents itself, while simultaneously keeping care accessible and payable, should be achieved (Regionale Oncologienetwerken, 2023). Especially given the complexities of delivering cancer care, coordination is required between multiple patients and providers, as well as adequate information exchange and regular communication flows between all those involved in treatment (Fennel et al., 2010). The Multidisciplinary Care Team meetings (MDTMs) is a method of ensuring the exchange of patient-related and technical information between all professionals and services involved in a patient's care (Fennel et al., 2010). Through regional MDTMs, in which all participating hospitals within the network come together to discuss patients, the most optimal, personal treatment plan for each patient can be provided. These regional MDTMs function as the backbone of network care, as all information comes together to guarantee that every patient with cancer is provided with fitting care, no matter how complex the case (Regionale Oncologienetwerken, 2023). With the involvement of diverse expertise and multiple hospitals, all patients, their relatives and general practitioners get provided with the right information and coordination (IKNL et al., 2022). The regional MDTMs are thus an important aspect of network collaboration within healthcare networks, and it is therefore important that these meetings are organized effectively, so that they positively contribute to the overall network goal of providing patients with fitting care.

However, with the rising number of patients, as well as the complexity of some cases, guaranteeing the quality of treatment plans becomes a serious challenge (Fütterer, 2018). The burden of the MDTMs keeps on increasing, as they take up more time of healthcare professionals, and more and more patients have to be discussed (IKNL et al., 2022). This often leads to a lack of oversight in

such meetings, where there are simply too many patients that need to be discussed, with the involvement of too many participating hospitals and expertise, causing inefficient meetings, with overflowing agenda's of specialists and not enough time to adequately discuss patients, giving them the time that they deserve (Fütterer, 2018; Smits-Caris et al., 2020; Vermeer, 2019)

This study proposes that issues within MDTMs, hampering these meetings from performing optimally, can be linked to underlying structural causes. An organizational structure is defined as “a network of related tasks” (Achterbergh & Vriens, 2010, p.231). Tasks are then a set of sub-activities allocated to some operational unit, which can be an individual, team, department or other organizational unit. The structure is then the network of these related tasks, and the way these tasks are defined, allocated and related to one another (Achterbergh & Vriens, 2019). The socio-technical theory by De Sitter (1994), argues that the structure of an organization is a main determinant for an organization's performance. Designing the structure of an organization according to this theory, should be based on the allocation of tasks to different operational units and the way these tasks are specialized, separated and differentiated amongst units (Achterbergh & Vriens, 2019). De Sitter (1994), defines structural parameters that can be used to assess the adequacy of organizational structures, which will be explained further in this research. This study proposes that the structural parameters of De Sitter (1994), used for designing an organizational structure, can also be applied to networks, and can provide suggestions for the restructuring of certain tasks within the regional MDTMs. Through assessing the structures of regional MDTMs according to this theory, suggestions for improving the effectiveness of these regional MDTMs can be made, which can accordingly improve the performance of the overall network.

1.2 Research problem and objective

Inter-Organizational networks, defined as groups of three or more organizations working together to achieve a common goal, have become a significant focus in research, and academic literature on this concept has increased exponentially (Bergenholtz & Waldstrøm, 2011; Popp et al., 2014; Provan et al., 2007; Provan & Kenis, 2008; Provan & Lemaire, 2012). Research primarily explores networks through the lens of social network theory, analysing the roles of network actors and their connections (Provan & Kennis, 2008; Provan & Milward, 1995; Borgatti & Ofem, 2010; Borgatti & Halgin, 2011; Li et al., 2021). While much of these studies have focused on describing structural characteristics of networks (Provan and Milward, 1995; Turrini et al., 2010; Lucidarme et al., 2015; Raab et al., 2015), the literature is limited in providing clear structural suggestions for optimizing network performance, and there are no definite answers to which structural form is the most adequate in designing the networks.

This study therefore will assess the structures of MDTMs through adapting a socio-technical approach. As explained, organizational structures according to these theories, refer to the way tasks

are defined, allocated and related to one another (De Sitter, 1994; Achterbergh & Vriens, 2019). The way these structures are designed can greatly affect the performance of organizations. This same thought can be applied to the MDTMs, and the structure of these meetings can act as a main determinant for the effectiveness of the MDTMs. The way tasks are defined, allocated and related, can be one potential cause of current issues existing within MDTMs, and thus hamper the effectiveness of these MDTMs. Through a structural diagnosis of the MDTMs as part of the network collaboration in healthcare networks, clear structural suggestions for improving the effectiveness of the MDTMs can be delineated, which in turn can positively contribute to the overall network collaboration. De Sitters (1994) theory on adequate structures will be central in this research, which argues that through assessing the values of structural parameters, suggestions can be imposed for improving organizational structures, so that they contribute positively to an organization's performance. Through adequately designing organizational structures, an organization's societal contribution can be realized, in this case meaning to provide effective care for patients (De Sitter, 1994; Achterbergh & Vriens, 2019). This study argues that this structural theory can also be applied to a network level, and can be a tool for analysing the structural adequacy of the MDTMs. Viewing adequate structures through this socio-technical lens can add a different perspective on structural determinants for network effectiveness from what has been studied in academic literature thus far, and can provide suggestions for adequately structuring the Multidisciplinary Team meetings (MDTMs).

The focus of this research will be on the Breast Cancer network East of the Netherlands. This network currently consists of 2 smaller networks (Alliantie Regionale TopZorg (ARTZ) Network and the Breast Cancer network), and are in the beginning phase of merging together into a larger network. The structure of the regional MDTMs will therefore be assessed for each separate network, so that potential differences can be compared. However, since they are in the stage of merging together, there will be referred to the overarching network of Breast Cancer network East of the Netherlands.

The aim of this research is a structural diagnosis of the MDTMs as part of the Breast Cancer network East of the Netherlands, and thus discover, based on existing theory, whether there is a gap between the *desired* structure of the regional MDTMs and the *discovered* structure of these meetings, through assessing De Sitters (1994) structural parameters. In turn, structural solutions can be suggested for improving the effectiveness of the MDTMs, as part of the Breast Cancer network East, so that network collaboration can be optimized. To realize this goal, several sub goals need to be achieved. Firstly, an explanation on healthcare networks should be provided, and the contribution of the regional MDTMs within network collaboration should become clear, specifically within the context of the Breast Cancer network East of the Netherlands. After this, a desired situation in which the main goal(s) of the MDTMS are realized, should be sketched, so that it can be compared to the actual situation of goal realization of the MDTMs, within the context of the Breast Cancer network East of the Netherlands. Then, an explanation on organizational structures should be provided, specifically according to the theory of De Sitter (1994), so that a desired situation of the structure of

the MDTMs can be compared to the actual structure of the MDTMs, to find out whether there is a gap. This discovery will generate practical solutions on how to structure MDTMs so that they positively contribute to the effectiveness of the meetings, and with that contribute to an effective network collaboration. From here, a conclusion can be drawn and theoretical as well as practical implications can be delineated.

1.3 Relevance

This master thesis will fill the gap in academic literature through looking at network structures from a socio-technical approach, from which solutions can be delineated for optimizing MDTMs in healthcare, and with that improve network collaboration. This can add to existing literature on social network theory that has up thus far been limited in providing structural solutions for improving network effectiveness. Using De Sitters (1994) structural theory can give more clear solutions on how to structure Inter-Organizational Networks, and can go beyond the existing notion on structural determinants for network effectiveness from a social network theory point of view. These new suggestions can then be further investigated in theories on Inter-Organizational networks. Combining these two theories in future research can yield novel insights on the adequate structuring of Inter-Organizational networks, which can lead to more comprehensive theories on the effectiveness of network collaboration.

Additionally, through assessing the structure of MDTMs, actual structural solutions for improving such meetings can be found, and can help with improving the overall network effectiveness. The literature on MDTMs goes as far as highlighting the problems within these meetings, but leaves out evidence-based criteria for improving the quality of these meetings (Walraven et al., 2022). A socio-technical perspective will give novel insights on how the structuring of the MDTMs can add to the overall performance of these meetings. Practical suggestions for more effectively structuring the MDTMs will provide healthcare networks with new insights and solutions for redesigning the structure of these initiatives. In turn, this can provide a starting point for improving the overall network collaboration within healthcare networks.

1.4 Thesis outline

To reach the main goal and subgoals as delineated above, several steps need to be taken. Firstly, in the conceptual framework (chapter 2), healthcare networks and MDTMs will be defined, displaying their characteristics and goals. Additionally, the main goals of the MDTMs will be defined which, hence realized, contribute to the overall performance of the network. Furthermore, the concept of structure according to De Sitters (1994) theory will be explained, and a desired situation in terms of structure will be defined in the context of the MDTMs. The reasoning for the data sources will then be further explained in the third chapter, along with the research design, data sampling, data analysis,

operationalisation and ethical implications. In the fourth chapter, a comparison between the desired and current situation will be made, through analysing the data. Then a conclusion of the results will be provided (chapter 5), and in the discussion chapter (6), interpretations of the results will be delineated, contribution to theory and managerial implications will be described, and the limitations of this research and recommendations for future research will be provided.

2. Conceptual framework

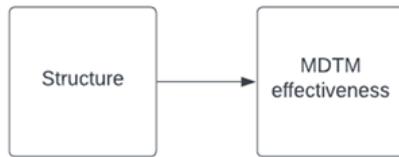
2.1 Conceptual model

This study takes the notion that the structure of MDTMs act as a main determinant for MDTM effectiveness (See figure 2.1). Accordingly, the regional MDTMs play a key role in effective network collaboration. Therefore, adequately structuring the regional MDTMs will positively contribute to the goal realization of the overall networks, and hence improve the performance of these networks. The aim of this research is therefore a structural diagnosis of regional MDTMs, in which the structure of these meetings will be analysed, to see whether current issues within MDTMs can be linked to structural causes. A structural diagnosis of the MDTMs as part of the Breast Cancer network East of the Netherlands, through assessing De Sitters (1994) structural parameters, aims to discover whether there is a gap between the *desired structure* of the MDTMs and the *discovered structure* of these meetings. Therefore, the structure of the two networks together forming the Breast Cancer network East, will be analysed, to diagnose whether the structure indeed acts as a main determinant for the MDTM effectiveness, leading to the conceptual model as drawn below in figure 2.1.

This chapter is dedicated to delineate this conceptual model. Firstly, it is important to understand what healthcare networks are, to vision the context in which these MDTMs operate (section 2.2). Then the MDTMs and their characteristics will be defined, and it will be made clear how these MDTMs help with the realization of healthcare network goals (section 2.3). Additionally the goals of the MDTMs will be described, so that it can be investigated whether goal consensus is met in the current situation, or whether the networks deviate from these goals. The last section (2.4), will then explain De Sitters (1994) theory on organizational structures, and link this theory to the context of MDTMs in healthcare networks, discovering the desired situation of the structure of these meetings. This chapter will include interview data and other additional documents, to create an image of the main goals of network collaboration, and how the MDTMs contribute to these goals.

Figure 2.1

Conceptual model



2.2 Healthcare Networks

Networks have become a broadly studied phenomena in research. Much of the research on organizational networks stem directly from social network theories. Social network is a concept that emerged in the 1960s, used in sociological analysis. Present theories surrounding the concept include strong ties and weak ties theory of Granovetter (1973), and the structural hole theory of Burt (2009). Social network theory has been widely used in the fields of academic research, and has become an important theory and method for research (Li et al., 2021). While earlier definitions have focused on the social relationships between individuals (Barnes, 1954 ; Wellman, 1988), in which relationships are treated as a set of social ties or social relations linking actors, later definitions have exceeded the scope of interpersonal relationships. Network actors do not necessarily have to be individuals, but can be families, departments, organizations, countries etc. (Li et al., 2021). Social network theory thus defines networks as a set of social actors and nodes, along with a set of ties that connect the nodes (Borgatti & Ofem, 2010; Borgatti & Halgin, 2011; Li et al., 2021). The nodes can be any type of entity that is capable of having some sort of relationship with another entity (Borgatti & Ofem, 2010). Theories to examine organizational networks either focus on an egocentric perspective or a “whole” network perspective. The first approach zooms in on the individual actor, in trying to demonstrate why this actor has developed interactive network ties with others (Provan & Lemaire, 2012). These theories are mainly used for investigating private profit organizations, in which self-interest is central for achieving economic benefits. A focus on “whole” goal-directed networks is more often used in public, non-profit organizations in which self-interest is still an occurring concept, but collective action is deemed important (Popp et al., 2014; Meier & O’Toole, 2001). In these approaches, the focus shifts from the individual actor, to all of the ties among a set of actors, in which ties are both present and absent among a defined set of organizations, indicating the extent to which the organizations are working together to achieve a common goal (Provan & Lemaire, 2012). Inter-Organizational Networks are then networks consisting of three or more organizations that are working together to achieve a common goal or purpose (Popp et al., 2014; Provan & Kenis, 2008). These whole networks are often formally established and governed, instead of occurring serendipitously, and are goal directed (Popp et al., 2014; Provan et al., 2007).

Inter-Organizational networks are often established to address complex, social and population health problems, or as they are called, wicked problems, that are incredibly difficult to solve (Popp et al., 2014). Collaboration is then more beneficial for tackling these wicked problems, instead of a

single organization trying to solve these problems by itself. There is thus a collaborative advantage in forming alliances and inter-organizational partnerships (Huxham & Vangen, 2005; Popp et al., 2014).

Healthcare Networks are forms of such whole networks, that are formally established, governed and goal-directed. With the rising demands in quality care, increasing expenditure and the more frequently occurring of burnouts from healthcare workers, collective action is needed to achieve the common goal of providing effective care, and contributing to the positive results for patients, organizations and society (Popp et al., 2014; Van der Weert et al., 2022; Arnetz et al., 2020).

The Breast Cancer network East of the Netherlands (Mammacarcinoom Network), is part of the Oncology Network East of the Netherlands, consisting of 8 participating hospitals and 1 radiotherapy group. The main goal of this network and specific tumor type networks, is to keep providing care for the rising number of cancer patients, with the best quality, efficiency and effectiveness (IKNL et al., 2022). With further medical developments, specialization and increasing personalization of cancer care, collaboration in networks guarantees that every patient will receive the best care according to the latest state of science, practice and expertise, regardless of the place they start the treatment process (IKNL et al., 2022; Peeters et al., 2015). Every patient with cancer should be able to receive fitting care, i.e. the best possible fitting oncological care, in multiple respects, that is payable and accessible. Collaborating, information-sharing and learning is therefore essential. Through regional collaboration in networks, knowledge, knowhow and capacities can be shared with each other, and can bring care for all patients to a higher dimension (IKNL et al., 2022). To be able to deliver high quality oncology care on a national and regional level, collaboration between patients, caregivers and healthcare institutions is needed to be leading in innovation and research and to establish norms for quality and transparency (Peeters et al., 2015).

The Breast Cancer network East of the Netherlands is currently in its formation stage. For now, this network is still separated into the Breast Cancer network, involving 5 participating hospitals, and the ARTZ network, involving three participating hospitals, and one radiotherapy group as main reference partner for radiotherapeutic care. While the 2 separate networks have different ways of collaborating, the main goals stay more or less the same: bundling forces to create more expertise, sharing experience and know-how, and creating more opportunities for sharing and initiating innovations and scientific research, so that healthcare can be improved (ARTZ, 2022).

The Breast Cancer network was informally established in 2016, from a small group of surgeons, as an initiative to enforce collaboration within the region (respondent 1, 2024). As for now, the network has 2 ways of collaboration: 1. through a monthly regional Multidisciplinary Team Meeting, and 2. Through an expert panel, in which the complicated cases of Breast Cancer, that cannot be postponed to the monthly meetings, are discussed through email. As respondent 1 mentions, collaboration is mainly focused on doing things together, learning from each other, and becoming better for the Breast Cancer patient (respondent 1, 2024). Additionally, the respondent mentioned that nowadays, collaboration is beneficial for doing research within the region, as you would not need a

separate research department within each hospital, which is more cost beneficial and time efficient (respondent 1, 2024)

The network of ARTZ is more formally established, and the three hospitals have been working together for over 10 years, not only within the sector of Breast Cancer care, but also for other tumor types. Through bundling forces, the three participating hospitals are able to deliver more excellent oncological care, through experience sharing and innovation and research opportunities (ARTZ, n.d.). ARTZ consists of a main board, and for each oncological entity a separate management with a chair, vice-president and a steering group. These boards come together 3 to 4 times a year to establish a governance plan, including protocols, quality standards, innovation opportunities, research plans etc (respondent 2, 2024).

While for some tumor types, collaboration is needed to centralize specialized care, so that the complex cases can be treated in the hospital where the most expertise is present, this goal differs for Breast Cancer. Since Breast Cancer is a frequent occurring form of cancer, all hospitals have the needed expertise in house to treat patients. In this case, collaboration is mostly beneficial for quality improvement (respondent 3, 2024). Additionally, respondent 2 mentioned that through working together, you can reach agreements on certain protocols, so that you standardize care for all participating hospitals. The respondent mentioned he found it weird if you go to another hospital, nearby, you suddenly have a whole different way of providing care (respondent 2, 2024). Uniforming care treatments will give every patient the same type of care, no matter which hospital.

While breast cancer is a very common cancer type, and most hospitals have the needed expertise in-house, collaboration is still necessary to deal with those cases that do require specialized expertise through regional collaboration. Additionally, working together can be significantly beneficial for the region, as research and innovation can be done through bundling forces, yielding more data and better results, and improving quality norms.

2.3 Multidisciplinary Team Meetings

Providing fitting care for each patient, requires the organization of the right expertise involved within treatment, a discussion of different treatment options, adhering to personal wishes and circumstances of the patient, adequate reporting, and the knowledge of the health situation of the patient (Regionale Oncologienetwerken, 2021). A way to achieve this main goal of providing patients with fitting treatment plans, adhering to their personal wishes and goals, is done through the Multidisciplinary Team Meetings (MDTMs). Multidisciplinary team meetings (MDTMs) are meetings between healthcare professionals with different medical expertise, and are recognised as an essential point of treatment plans/recommendations (Rollet et al., 2021; Rossel et al., 2020). These meetings contribute to coordinated care and improved quality of care (Rossel et al., 2020). MDTMs ensure coherence between treatment plans and patients conditions through clarifying therapeutic objectives and

questioning the proportionality of care (Rollet et al., 2021). The primary goal of MDTMs in the Oncology Network East of the Netherlands is to come to a unanimous diagnosis and/ or optimal treatment options fitting with the situation of patients (Smits-Caris et al., 2020). The starting point of these MDTMs is that a patient is discussed in the MDTM where the needed expertise is present. This means that for frequently occurring tumor types, the MDTM can take place within the hospital, and the more special/ complex cases are discussed in a tumor specific regional MDTM, where much specialized expertise is present. Really rare cases of tumors are discussed in a regional, tumor specific MDTM of a specialized centrum, in which all patients with that rare tumor in the region are discussed (Smits-Caris et al., 2022). Through organizing these regional MDTMs, input from other hospitals and expertise ensures the quality treatment plans of the more complex cases through discussion and knowledge sharing. The regional MDTMs serve as a backbone for network collaboration, as most patients with cancer cannot be treated from A to Z in the same centrum, or by the same doctor (Peeters et al., 2015). Therefore, regional collaboration and discussion is necessary, and agreements for each hospital per tumor type have to be made on whether they can handle certain forms of care (Peeters et al., 2015). Next to this, regional MDTMs can foster and strengthen network collaboration, as seeing each other and speaking to each other occasionally creates shorter, faster lines, but also more trust between participating hospitals (respondent 4, 2024). This strengthens the will to work together on for example, research and innovation fronts. As respondent 3 stated,

“In the MDTMs, the real collaboration takes place..... if you ask me, where lies the core of network collaboration, then I think this lies within the MDTMs, yes.” (respondent 3, p.12, 2024).

The regional MDTMs within the Breast Cancer network take place once a month, on Fridays from 13:00 to 13:30. The participating hospitals within this network are Bernhoven, Canisius Wilhelmina Hospital, Jeroen Bosch Hospital, Maasziekenhuis Pantein & Radboudumc (academic hospital). The participants can apply patients for discussion 12 hours before the meeting takes place. The presence of all hospitals for the MDTM is expected, also if a particular hospital has not applied a patient for discussion. Accordingly, the same participants are present for each hospital. These include an oncologist, surgeon and nurse specialist, and for some hospitals a radiologist and pathologist is also present (respondent 1, 2024).

The regional MDTMs within the ARTZ network take place once a week. The three participating hospitals (Rijnstate, Slingeland hospital and hospital Gelderse Vallei), come together every Thursday at the end of the day to discuss the complex cases. Clear criteria have been made for the discussion of patients. They discuss pregnant patients, men with breast cancer, and other complexities such as multiple metastases (respondent 2, 2024). Usually they discuss around 5-10 patients. The meetings take about 0:30 -1 hour, depending on the number of patients. In line with the Breast Cancer network, all participating hospitals are expected to attend the meetings.

2.3.1 Goals of the regional MDTMs

While the MDTMs are a great initiative to contribute to the overall collaboration within the Oncology network, there are some common issues surrounding these meetings. MDTMs are very resource-demanding as the number of patients keeps on growing and the complexity of certain cases increases. The fast-pace settings of the meetings, with high patient volumes and large number of cases that need to be discussed, leaves inadequate time for in depth-discussions (Lamb et al., 2011). The MDTMs are time intensive, requiring preparation activities for numerous patients, causing overflowing agenda's for healthcare professionals (Lamb et al., 2014). Additionally, radiologists play a crucial role within the meetings, as they review current and previous multi-modality imaging, and provide an overall impression of the patient's current disease status (Balasubramaniam et al., 2015). With the rising number of patients, the workload and time commitment of the radiologists increases as well, using out of time hours to prepare for these meetings (Balasubramaniam et al., 2015). Moreover, the decision making process is very much dependent on the number of active participants in such meetings and with that, in the delivery of effective treatment to cancer patients (Rajasekaran, 2021). As for now, there is much inconsistency in the attendance of essential specialists at meetings, and bringing together all participants under one roof is a practical issue that hampers and slows down the decision making (Rajasekaran, 2021). While research has focused on issues of such meetings, not much literature has dived into the criteria guaranteeing the high-quality of these MDTMS (Walraven et al., 2022; Winters et al., 2021).

Issues within the MDTMs of the Oncology Network East of the Netherlands seem present as well. As a document of Radboudumc mentioned, the pressure of MDTMs for healthcare practitioners keeps increasing. Generally, one MDTM takes approximately 1,5 hours, with on average 10 healthcare professionals having to prepare +/- 30 minutes, and around 20 of these meetings per week per hospital, generating a total time investment of around 10 FTE per hospital (Smits-Caris et al., 2020). With these issues in mind, there is a need for effectively organizing the regional MDTMs for them to positively contribute to the goal of providing an unanimous diagnosis and/ or optimal treatment options fitting with the situation of patients.

One attempt to optimize the effectiveness of the MDTMs has already been made, namely to divide patients into three levels of MDTMs. While the more routine cases can be discussed in-house, the complex cases are discussed regionally, giving them more discussion time and the attendance of the right expertise, so that even for these complex cases, fitting treatment plans can be provided. Next to this, institutions have made efforts to set standards/norms for these meetings, so that they can become more or less uniformed and integrated into network collaboration. One main effort is the 'SONCOS (Stichting Oncologische Samenwerking) normeringsrapport', in which the multidisciplinary vision on the quality of Oncology care is described. Here certain norms are set, to optimize the MDTMs in terms of efficiency and effectiveness (SONCOS, 2024). One norm is that

multiple expertise should be involved, meaning that for each tumor type, a diverse range of specialists are present at the meetings. For the Breast Cancer network East/ Mammacarcinoom, this means that the following specialists have to be present: surgical oncologist, medical oncologist, radiologist, radiation oncologist, pathologist, nuclear medicine physician and/or radiologist with knowledge of nuclear medicine, case manager, breast care nurse and/or oncology nurse and/or oncology nurse specialist (SONCOS, 2024). Additionally, the document states that agreements should be made on which patients are discussed within the regional MDTMs, and how often they take place. Another important norm in this document is that one or more MDTMs should be held per week, in which at least 90% of the patients should be discussed. For the less frequent tumor types, there can be a deviation from this norm, in which the patient is discussed in a two- weekly frequency, with a possibility of a consultation from a referring hospital.

Additionally, Radboudumc has created a Blueprint, in which each stage in the process of the MDTMs is mapped out, according to specific criteria, creating a standardized and formalized process to be used for other hospitals to effectively organize the MDTMs. This Blueprint was set up with a goal to improve the effectiveness and efficiency of these meetings. Each stage involves numerous criteria and success factors for improving the MDTMs, such as a central procedure for applications, in the form of an Electronic patient Dossier, an overarching organization fulfilling administrative tasks, called the CvO (Centrum for Oncology), the involvement of the right expertise and hospitals, requirements for reporting of the meetings etc (Smits-Caris et al., 2020). This Blueprint serves as a guideline for other networks, but does not necessarily have to be enforced (respondent 3, 2024; respondent 5, 2024).

Next to these more uniform goals, the Breast Cancer network and ARTZ network as part of Breast Cancer Network East of the Netherlands , also delineated some goals, indicating a desired situation of these MDTMs in which they operate in the most effective way. Respondent 1 mentioned that the regional MDTMs are important for seeing the essence of working together within networks, stating:

“What I noticed in those first years that we did this, is that it also really helped to see each other, and realize that you are in a network... In that way you have exchanged a lot of information that usually would only be discussed at the common meetings held 3 times a year. So it gave the network some more body” (respondent 1, 2024, p.9).

Adding on to this, respondent 4 mentioned that though weekly regional MDTMs, you create shorter lines, in which you see and speak to each other. This helps to improve the network collaboration as a whole (respondent 4, 2024). Therefore, regularly held regional MDTMs are important for fostering network collaboration. As respondent 5 stated:

“In principle, it brings way more connection because you know each other and see each other within the MDTM” (respondent 5, p.10, 2024).

All these requirements, formalized procedures, norms etc, are there to improve the effectiveness of the MDTMs. Through establishing effective regional MDTMs, the main goal of the MDTMs: coming to a unanimous diagnosis and/ or optimal treatment options fitting with the situation of patients, should be made achievable. For the MDTMs in a regional setting, this thus means that all the complex cases should be discussed within the network. There should then be no issue to adequately discuss all the patients on the discussion lists, it should be no issue to bring all the participating hospitals together, and the needed expertise should be present in all these meetings. The MDTMs should not be too time intensive and all involved should see the essence and relevance of these regional MDTMs, so that they can strengthen network collaboration. Initial doubts regarding certain complex cases should be resolved after the meetings, all coming together in the form of a personal, fitting treatment plan for every patient.

2.4 Organizational Structures

This research builds on the socio-technical theory from De Sitter (1994), who found that performances of bureaucratic organizations were suboptimal in regards to efficiency, effectiveness and innovative capacity (Pot, 2019). The quality of work in his time was declining, and De Sitter (1994) linked this to risks of alienation, stress, mental instability and a lower social participation (Pot, 2019). Whereas previous studies argued to measure performance in terms of ‘Quality of Organization’, reflecting efficiency and effectiveness, De Sitter (1994), added the dimension of ‘Quality of work’ for an organization's societal contribution, relating to the well-being of employees within the organization (De Sitter, 1994; Achterbergh & Vriens, 2019). He argued that in order to realize an organization's societal contribution, both these dimensions should be optimal. The societal contribution of an organization relates to the realization of goals. This refers to the role of organizations in society, and their contribution to the wellbeing of societal members (Achterbergh & Vriens, 2019). This can mean providing societally valuable products or services, providing other positive side effects such as employment or the well-being of employees, and by mitigating/avoiding negative side effects (Achterbergh & Vriens, 2019). De Sitter (1994) argues that an adequate organizational structure contributes to the realization of the organization's societal contribution. An organizational structure is defined as “a network of related tasks” (Achterbergh & Vriens, 2010, p.231). Tasks are then a set of sub-activities allocated to some operational unit, which can be an individual, team, department or another organizational unit. The structure is the network of these related tasks (Achterbergh & Vriens, 2019). A task comes into existence by decomposing the main organizational activity. An activity consists of a begin state, process state and an end state and these activities can be decomposed into sub-activities. A task can then be defined by assigning a subset of these sub activities to some

operational unit. The definition of an organizational structure thus encompasses the configurations of tasks, i.e. the grouping of sub-activities into tasks and the relations between tasks in a network (De Sitter, 1994). De Sitter (1994), also identifies two sub structures: 1. the operational structure, and 2. the control structure. The operational structure relates to primary processes, i.e. the grouping and coupling of operational tasks, and the control structure realizes regulation activities (Achterbergh & Vriens, 2019). These types of activities relate to dealing with disturbances in the primary process (operational regulation), setting goals and redefining goals (strategic regulation), and providing an adequate organizational infrastructure by means of adequately defining, implementing and redefining human resources, technology & structure (regulation by design) (Achterbergh & Vriens, 2019). Describing an organizational structure in a more detailed manner can be done by using De Sitters (1994) structural design parameters. De Sitter (1994) proposes several parameters that can be used to look at structures of organizations, and used to design the structure of organizations. Organizations can have different values for each of these parameters, and can give an indication on the adequacy of the structure. This research uses the following 4 structural parameters for determining the adequacy of the structure of the MDTMs:

Parameters related to the production structure:

1. The degree of functional concentration
2. The degree of differentiation of operational tasks
3. The degree of specialization of operational tasks

One parameter describing the relation between the production and control structure

4. The degree of separation

Degree of functional concentration

The degree of functional concentration can be defined as the degree to which all operational tasks are related to all order types. An order is a specific, individual demand for a product or service, for example a client demanding a particular form of care. An order type is then a particular subset of all orders, for example all demands for a particular form of care in the south region are grouped together. In this sense, a high degree of functional concentration means that all operational activities are related to all order types (Achterbergh & Vriens, 2019). Achterbergh & Vriens (2019), use the example of a factory producing two types of chairs and three types of tables, so five order types in total. All operational activities are grouped into operational departments, for example a drilling department, a painting department and an assembly department. Each department then processes all the 5 order types. Lower degrees of functional concentration then entail that operational tasks are only coupled to a few order types. In this example, operational tasks would be coupled to for example the production on chair type 1. This means that each order type has its own dedicated set of activities (Achterbergh &

Vriens, 2019).

Degree of differentiation of operational tasks

Differentiation of operational tasks relates to the separation of production, preparing, and support activities into different tasks (Achterbergh & Vriens, 2019). Preparing activities relate to activities preparing for the actual production, such as making information available, delivering the required material and tools, production activities relate to the actual production of the product/delivery of the service, and support activities relate to for example maintenance of machines, or internal logistics (Achterbergh & Vriens, 2019). When this parameter has a high value, the operational activities are grouped into separate production, preparation and support tasks. It has a minimum value when operational activities include all three activities (Achterbergh & Vriens, 2019).

Degree of specialization of operational tasks

This third operational parameter refers to the degree of which operational tasks contain only a small part of the complete operational process (Achterbergh & Vriens, 2019). A high value on this parameter means that the complete operational process is split up into sub-activities which are allocated to separate tasks. For example, production activities are divided into small tasks, in which each employee performs one of these small tasks. When the degree of specialization is low, the operational tasks cover the complete operational process. This then means that one person is responsible for all operational activities relating to one order type (Achterbergh & Vriens, 2019).

Degree of separation

The last parameter relates to the degree to which operational and regulatory activities are assigned to different tasks. De Sitter (1994) argues that all tasks have regulatory and operational aspects. This also holds for regulatory activities. Operational regulation, regulation by design or strategic regulation have an operational and a regulatory aspect. For instance, the operational part of operational regulation is performing all the sub-activities required to carry out a particular way of dealing with a disturbance (Achterbergh & Vriens, 2019). These operational activities require goals provided by strategic regulation and infrastructural conditions through regulation by design. These sub-activities are additionally also subject to disturbances, hence operational regulation itself requires 'operational regulation' (Achterbergh & Vriens, 2019). A high value on this parameter means that operational tasks contain as few regulatory activities as possible. Additionally, one set of tasks are dedicated to the production structure and a separate set of tasks dedicated to the control structure (Achterbergh & Vriens, 2019). A low value on the design parameter means that operational and regulatory activities are integrated into tasks as much as possible. Tasks contain activities related to both the control and production structure (Achterbergh & Vriens, 2019).

2.4.1 Adequate MDTMs structures

As explained, an organizational structure defines tasks and the way they are related. An 'adequate structure' is important, as the way jobs are defined and related highly influences the efficiency and effectiveness of work (Achterbergh & Vriens, 2019). De Sitter (1994) argues that adequate structures contribute to the realization of the organization's societal contribution. An organization's societal contribution is realized by the means of adequately performing 4 basic activities: primary processes (grouping and coupling of operational tasks), operational regulation (activities relating to dealing with disturbances in the primary processes), strategic regulation (setting goals and redefining goals), and regulation by design (defining, implementing and redefining human resources, technology & structure) (Achterbergh & Vriens, 2019). Organizational structures come into existence here as they should enable these four basic activities in such a way that they can realize the organization's contribution. These four activities are supported by structure if a structure is not a source of disturbance, and if a structure comprises the means to deal with a disturbance (Achterbergh & Vriens, 2019).

A structure is deemed a source of disturbance if the number of relations in the network are high, and if the variability of these relations are high. The higher the number of relations within the network, the higher the probability of disturbances (Achterbergh & Vriens, 2019). When an operational task has many relations with other tasks, any relation is a source of disturbance, and means that something could go wrong. Thus the more relations a task has, the higher the probability of disturbances for the task. This then also applies to the whole network of tasks: the more relations in the network, the higher the probability of disturbances (Achterbergh & Vriens, 2019, p.76). Variability of the relations refers to the variety of content of these relations. This content can either be physical (material or tools) or nonphysical (messages, instructions, or other information). A high variability can lead to disturbances, as it can increase the probability of mistakes being made, but also because tasks then involve many different activities (Achterbergh & Vriens, 2019). If tasks in a network are related to all order types, the variability of relations is higher than in an organization in which tasks are coupled to only a subset of order types (Achterbergh & Vriens, 2019). De Sitter (1994), argues that structures should be designed in such a way that the structure itself is not a source of disturbance, and thus has as few relations as possible, and as little variability as possible (De Sitter, 1994; Achterbergh & Vriens, 2019).

However, not all disturbances are caused by the structure itself, and can therefore not be designed away. The complexity and uncertainty of organizations enables unforeseen disturbances to emerge, which means that structures should be designed in such a way that tasks compromise enough regulatory potential. Operational regulation, regulation by design and strategic regulation should thus be built into tasks and should not be kept separate (Achterbergh & Vriens, 2019).

De Sitter (1994) argues that these two criteria: low relations and low variability, for structural

adequacy, can only be realized through low parameter value structures (LPVS). For this to understand, it is important to understand what a Low parameter value structure looks like.

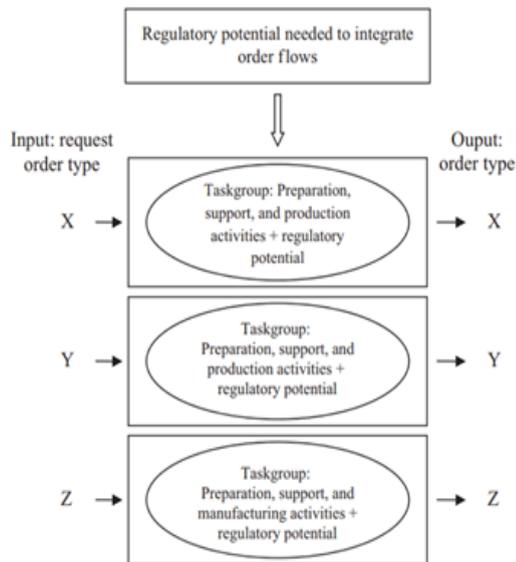
Low parameter value structures (LPVS's)

An ideal organizational structure with low values on the parameters, contains 'parallel production flows' which are dedicated to a subset of orders (functional concentration), low levels of differentiation, in which production, support and preparation activities are integrated in each order flow as much as possible, and low operational specialization, in which tasks cover the whole production process, or at least as large as possible (Achterbergh & Vriens, 2019). Employees in this setting, have broad and coherent jobs, which ideally cover operational activities relevant for the production of the complete job (Achterbergh & Vriens, 2019). Employees do not have to perform small jobs with a short cycle time in functional departments, but are part of so-called semi-autonomous teams that perform production, support and preparation activities themselves (Achterbergh & Vriens, 2019). Additionally, these semi-autonomous teams have enough regulatory potential to produce their own flow-related output. However, some form of regulation that overlooks the total set of order flows is still needed, for example, some form of overarching strategic formulation, or some form of operational regulation in dealing with interferences between flows. This can however be a responsibility of employees representing flow teams, it does not have to be a job performed by someone who does not work in a particular flow (Achterbergh & Vriens, 2019). De Sitter recommends designing structures that have as low values on the parameters as possible, given the specific organizational and market conditions (De Sitter, 1994).

For each parameter will be explained why a high value is problematic, and thus, why a low value is desirable.

Figure 2.2

A representation of a LPVSs



Note: An organizational structure with low values on design parameters. From *Organizational Development: Designing Episodic Interventions* (85), by J.Achterbergh., & D.Vriens, 2019, Routledge. Copyright 2019 by Jan Achterbergh & Dirk Vriens.

Functional concentration

With low functional concentration, tasks are coupled to a specific order type, or only a few order types. When organizations deal with the production process of all order types, there are many different order combinations within a production flow, and each order combination requires a different set and sequence of operational activities, and different interactions between operational tasks (Achterbergh & Vriens, 2019). This creates a high variability, reflecting all the order combinations. A high functional concentration thus increases the number of orders a task is related to, and as every order requires different demands, the variability of relations increases. This makes realizing individual and aggregated tasks targets more problematic (Achterbergh & Vriens, 2019).

When for example a lot of patients are discussed within MDTMs, this leads to a high variability, as every patient is different and requires a different treatment plan. Tasks additionally become very short, as many patients have to be discussed in the according timeframe. Discussing every patient effectively then might become problematic. Furthermore, the attendance of many different specialists from many different hospitals adds to a loss of oversight, more patients to be discussed, and thus a higher variability, as well a higher chance of absence.

A high functional concentration leads to a loss of oversight and the MDTMs might simply become too much. Disturbances are then likely to occur, for example going over the time limit, not being able to effectively discuss all patients or a frequent absence of involved hospitals/specialists since too many people are involved within these meetings. Therefore, the value of functional concentration should be as low as possible, so that these disturbances are less likely to occur, and the variability decreases. This leads to the following requirement.

Requirement 1: *The parameter value of functional concentration should be as low as possible given the context of the MDTM, to decrease the variability within the MDTMs and make sure that the structure of the MDTMs are not a source of disturbance.*

Differentiation of operational tasks

Low differentiation ideally requires the inclusion of preparation, support and production activities into operational tasks (Achterbergh & Vriens, 2019). Employees then have broad jobs that include all the operational activities needed for the production of the complete job (Achterbergh & Vriens, 2019). This indicates tasks dealing with preparation activities, production activities and support activities. When these activities are split up into different tasks, it increases the number of tasks and with that, the number of relations in the operational network (Achterbergh & Vriens, 2019). A relation for example exists between an employee responsible for the planning activities of a certain product and the employee who actually produces the product. As argued, many relations lead to the probability of more disturbances occurring. So, the value for this parameter should be as low as possible. This leads to the following requirement:

Requirement 2: *The differentiation of preparation, support and production activities should be as low as possible given the context of the MDTM. This decreases the amount of relations in the network of tasks, and with that the probability for disturbances to occur.*

Specialization of operational tasks

When the value of specialization of operational activities is high, tasks are split up into many different short sub-task, performed by different organizational members. One caregiver then only performs one task within a limited amount of time, and another caregiver then performs the next task for the same patient (Achterbergh & Vriens, 2019). This means that the tasks are performed sequentially, as one task can only begin when the other is finished, which heavily increases the relations within the network of tasks, causing probabilities for disturbances to occur (Achterbergh & Vriens, 2019). For the context of the MDTM, the discussion of many patients in one MDTM, also indicates a short amount of time for each head practitioner to present and discuss their patient. When many patients have to be discussed sequentially, within a relatively short time, the relations within the network of tasks increases as well, increasing the probability for disturbances to occur. Therefore, the value on this parameter should be as low as possible, leading to the following requirement:

Requirement 3: *The specialization of operational activities should be as low as possible, given the context of the MDTM. Tasks then cover a broad range of activities that deal with the complete MDTM process.*

Degree of separation

Lastly, the degree of separation should be low, meaning that tasks include regulatory and operational aspects. Employees themselves should thus have enough regulatory power to deal with certain disturbances that occur. When the separation is high, organization members in the operating core have little decision authority and take no part in regulating their own work, meaning that they cannot learn to solve job-related problems themselves (Achterbergh & Vriens, 2019). When regulatory tasks are set apart from operational tasks, there is also a delay in the dealing with disturbances, as they are instead processed by a hierarchy of operationally detached regulators (Achterbergh & Vriens, 2019). Thus, the degree of separation should be low, for it allows employees to adequately and swiftly deal with disturbances, and have the regulatory potential to prevent them from happening again. For the context of the MDTMs, this leads to the following requirement:

Requirement 4: *The separation of regulatory and operational activities should be as low as possible, given the context of the MDTMs, so that it allows employees involved in the MDTM to deal with certain disturbances themselves, and be able to prevent them from happening again.*

3. Methodology

3.1 Research design

The aim of this research is to find out the underlying structural causes for current issues existing within MDTMs, and providing suggestions for more effectively designing the MDTMs as part of the Breast Cancer network East of the Netherlands. This study therefore takes a diagnostic approach of the structure of the MDTMs, in which the structure will be analysed by comparing the *discovered* structure of these MDTMs to the *desired structure* as argued by De Sitter (1994). A diagnostic approach is used in research to find the causes of problems or social phenomena within organizations (Befani, 2020; Bleijenbergh, 2013).

For a detailed, in depth-study of the phenomena central in this study, qualitative research is appropriate. Qualitative research is suitable for discovering meanings and interpretations to describe social phenomena in an in-depth manner (Yin, 2003; Jones, 1995). To give an elaborate answer to the given research goal, it is important to collect detailed data that describes and explains the concepts in

depth. The diagnostic character of this research calls for in-depth interviews to find the underlying causes for current problems within the MDTMs. The qualitative character of this research gives room to elaborately investigate and understand different perspectives from participants within the Breast Cancer network East of the Netherlands and the MDTMs on how they view current issues/challenges. Additionally, these perspectives can differ in terms of goal achievement of the MDTMs and where they view themselves in the current situation. It's important to incorporate all these different views to provide a comprehensive understanding of the phenomena being studied.

This study aims to investigate the MDTMs as part of the Breast Cancer network East in the Netherlands, by combining the adoption of multiple data sources. Because the network consists of two separate networks for now, a multiple case study is used, in which multiple carriers of a social phenomenon in an everyday setting are investigated, through using several data collection methods to reveal the patterns and processes that are underlying the phenomenon (Bleijenbergh, 2013). Through comparing two cases, a study can get better insights on the patterns that cohere with a social phenomenon (Bleijenbergh, 2013).

3.3 Data methods & sampling

Semi-structured, in-depth interviews were used as a primary data source, along with additional documents provided by the 2 networks, and additional documents found online as secondary data sources.

In-depth interviews were necessary for this research, as they allow for rich data gathering on individuals' thoughts and behaviours. In depth-interviewing is a qualitative research technique involving intensive individual interviews, conducted with only a small number of respondents, and are useful for wanting to explore new issues in depth (Boyce & Neale, 2006). As this research aims to unravel certain issues and underlying causes of these issues, in depth-interviews are useful to offer a complete picture of the current state of things (Boyce & Neale, 2006). The in-depth interviews were set up as semi-structured interviews, to leave room for individual input and additional questions next to the predefined open questions. Questions within the interviews concerned the goals of the regional MDTMs as stated in chapter 2, to perceive an image of the current state of the MDTMs. Next to this, questions surrounding De Sitters (1994) parameters were discussed, to sketch the discovered structure of the MDTMs.

Additional documents of the overarching network, Oncology Network East, were analysed for further insights in the general processes and structure of MDTMs. These documents consist of reports, improvement plans and other general documents to be found online. Additional documents were provided by the Breast Cancer network East, which were further analysed for more specific details on the MDTMs within the specific network type. These documents consisted mostly of emails, or short summary reports of meetings. They were therefore mostly used for informative purposes, and

not included in the eventual research.

For the respondents of the interviews, purposive sampling was used as a method for collecting the respondents. Participants were intentionally selected based on their participation in the MDTMs and/or their involvement in the organization of these meetings. As these participants know the in-and outsides of these meetings, they can provide in-depth, detailed information on their experiences and certain issues they see. The respondents were cancer specialists within the Breast Cancer network East of the Netherlands, and policy makers/advisors. An advantage of this selection method is that the quality and accuracy of data collected can be improved by selecting participants that are most suitable for answering the RQ (Samaan et al., 2020). Five respondents were interviewed for this research, and remained anonymous. Therefore, respondents will be referred to as respondent 1, respondent 2 etc. .

3.4 Operationalization

The diagnostic nature of this research calls for a data analysis explaining and finding the underlying causes for existing issues within MDTMs. This requires a description of the current situation of the MDTMs in regards to their goals, and a comparison with the desired situation. Since the goal of the MDTMs itself is largely straightforward, namely to provide the most optimal, fitting treatment plan for each patient, there is no necessity in further operationalizing this main goal. Keeping the requirements in mind, the respondents will be asked questions on the goals of MDTMs and whether they feel they achieve these goals. By formulating the network's goals in regards to the regional MDTMs, as done in chapter 2, a comparison can be made in chapter 4 and a conclusion can be drawn on whether they achieve these goals. The next step is to look at the structural parameters of De Sitter (1994) to see whether these parameters contribute to the achievement or non-achievement of the formulated goal, and thus, whether there is a gap in the *desired structure* of the MDTMs and the *discovered structure*. A description of the actual values of the parameters need to be provided, and identify whether the current values of the parameters are problematic for the achievement of the goals, through comparing the actual values to the norm values. If a parameter's actual value is considered too high based on the expected impact on the performance of the MDTMs, it is noted as a problematic parameter. In order to determine whether a parameter is problematic, the parameter should be operationalized according to the context of the MDTMs, to be able to measure the actual value of this parameter. As stated in Chapter 2, four parameters are important for the organizational performance, those being 'functional concentration', 'degree of differentiation of operational activities', 'degree of specialization of operational activities', and 'degree of separation'. These will be operationalized in the following section, and the norm value will be determined.

Functional concentration

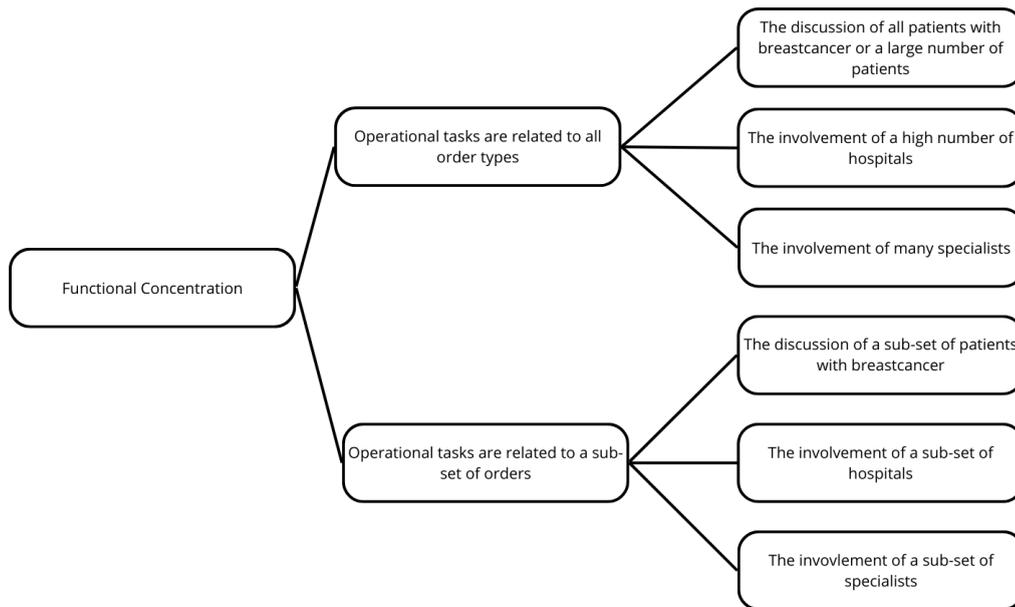
Functional concentration refers to the degree to which operational tasks are related to all order types. For this parameter, the value can be high, i.e. 'Operational tasks are related to all order types', or low

‘the grouping of operational activities is based on specific order types’. An order type can be grouped by means of a specific product, service, or location (Achterbergh & Vriens, 2019; De Sitter, 1994). A high value of functional concentration then entails tasks being related to all products, services or all locations. A low value of functional concentration entails tasks being related to a sub- set of products, services or locations.

Within the context of MDTMs, tasks could be related to for example the discussion of all patients within a regional MDTM, or to the discussion of specific types of patients/tumors (for example patients under 30, pregnant patients, patients with a specific tumor type etc). When all patients are discussed, all head practitioners are then also involved within these meetings. Additionally, many hospitals can be involved within these regional MDTMs, or only a few hospitals from a certain location. The discussion of many different types of patients in one MDTM, or the involvement of many specialists and/or hospitals would indicate a high functional concentration. A low functional concentration would then mean the discussion of only a specific patient group, or the presence of only a few hospitals and expertise for each MDTM.

Figure 3.1

Operationalization of Functional Concentration



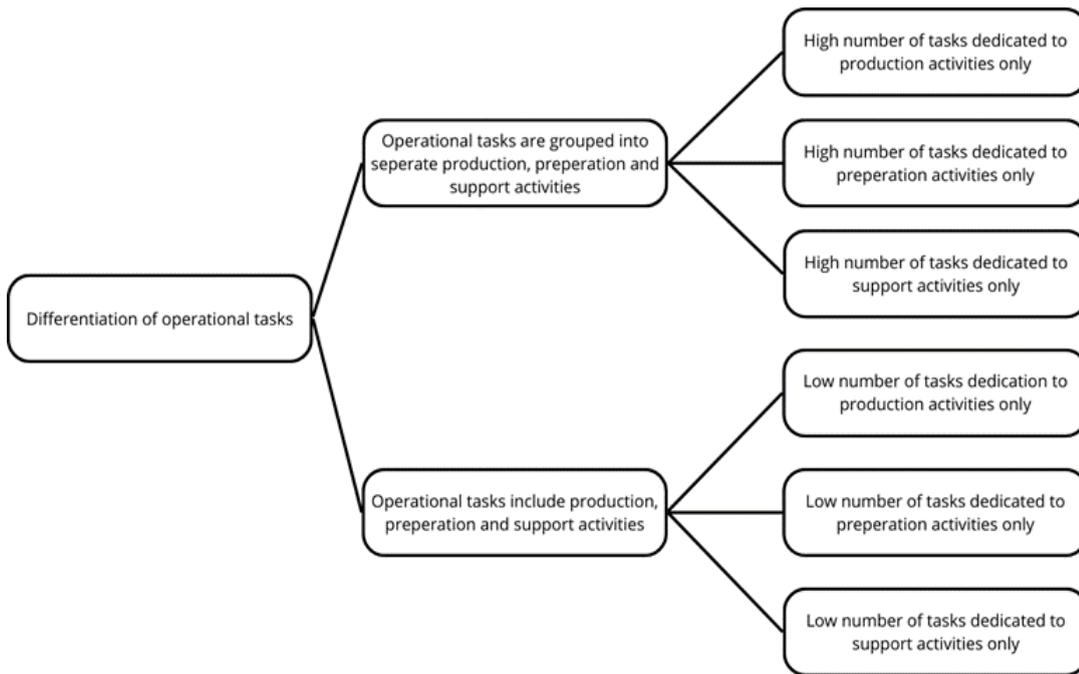
Norm value: *The parameter value of functional concentration should be as low as possible given the context of the MDTM, to decrease the variability within the MDTMs and make sure that the structure of the MDTMs are not a source of disturbance. This means that the number of order types per MDTM should be as low as possible.*

Differentiation of operational tasks

Differentiation of operational tasks refers to the separation of production, preparing, and support activities. When this parameter has a high value, production, preparation and support activities are grouped into separate operational tasks. It has a minimum value when operational tasks include all three activities (Achterbergh & Vriens, 2019). Then, two dimensions arise: ‘Operational tasks include production, preparation, and support activities (i.e. low value), and ‘Operational tasks are grouped into separate production, preparation and support activities’ (i.e. high value). For a low value on this parameter, the following indicators can be defined: ‘low number of tasks dedicated to production activities only’, ‘low number of tasks dedicated to preparation activities only’ and, ‘low number of tasks dedicated to support activities only’. For a high value on this parameter, these indicators are then formulated as followed: ‘high number of tasks dedicated to production activities only’, ‘high number of tasks dedicated to preparation activities only’, and ‘high number of tasks dedicated to support activities only’.

Figure 3.2

Operationalization of differentiation of operational tasks



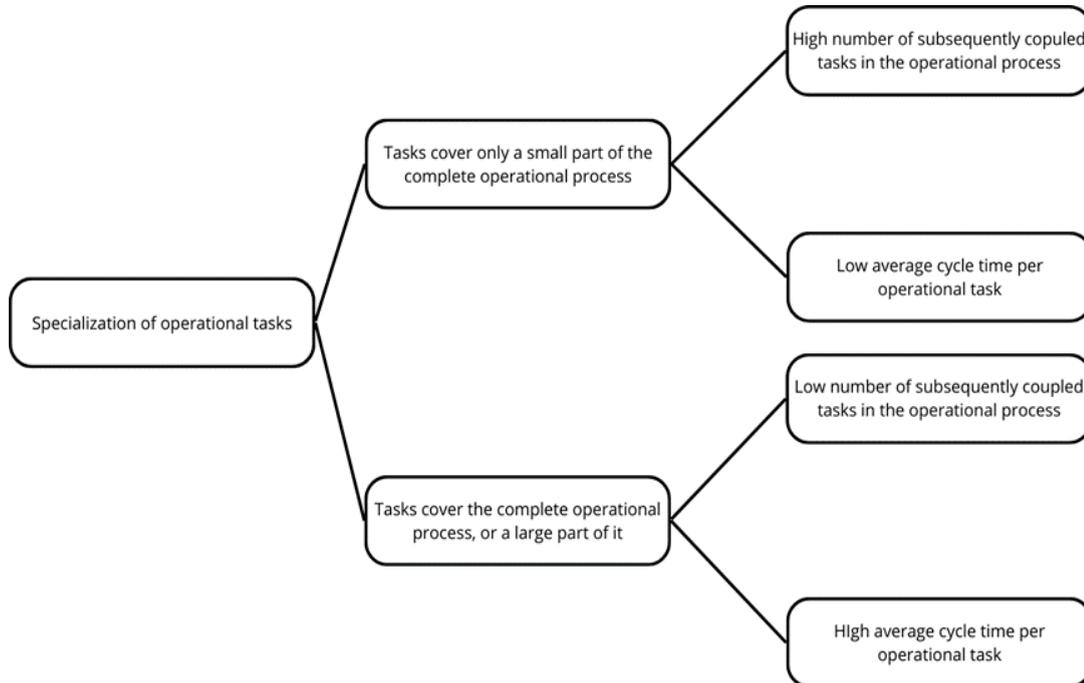
Norm value: *The differentiation of preparation, support and production activities into operational tasks should be as low as possible given the context of the MDTM, so that tasks include preferably all types of activities. This decreases the amount of relations in the network of tasks, and with that the probability for disturbances to occur.*

Specialization of operational tasks

The specialization of operational activities entails to the degree to which operational activities are split up, or segmented, into tasks covering the entire operational process (Achterbergh & Vriens, 2019; De Sitter, 1994; De Sitter et al., 1997). For a high value on this parameter, this indicates that ‘task covers only a small part of the complete operational process’, and for a low value this indicates that ‘tasks cover the complete operational process, or a large part of it’. A high degree of specialization of operational tasks is indicated by a ‘high number of subsequently coupled tasks in the operational process’ and a ‘low average cycle time per operational task’. A low degree of specialization of operational tasks can be indicated by a ‘low number of subsequently coupled tasks in the operational process’ and a ‘high average cycle time per operational task’.

Figure 3.3

Operationalization of specialization of operational tasks



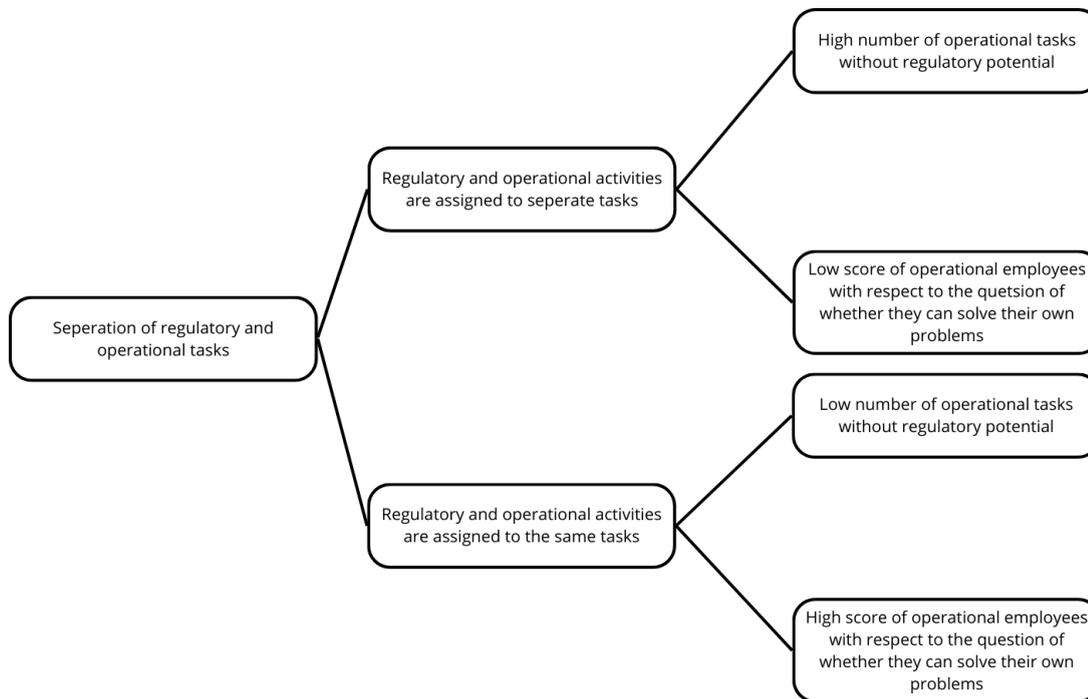
Norm value: *The specialization of operational activities should be as low as possible, given the context of the MDTM. Tasks then cover a broad range of activities that deal with the complete MDTM process. In this way, the relations in the network of tasks decreases, and the probability for potential disturbances as well.*

Separation of regulatory and operational tasks

The separation of regulatory and operational activities refers to the degree to which regulatory and operational activities are assigned to different tasks (Achterbergh & Vriens, 2019; De Sitter, 1994; De Sitter & Den Hertog, 1997). A high value on this parameter indicates that regulatory and operational activities are assigned to separate tasks, and a low value indicates that regulatory and operational activities are assigned to the same tasks (Achterbergh & Vriens, 2019). Indicators for a high parameter can then be formulated as follows, a ‘high number of operational tasks without regulatory potential’, and a ‘low score of operational employees with respect to the question of whether they can solve their own problems’. For a low parameter, this indicates a ‘low number of operational tasks without regulatory potential’, and ‘high score of operational employees with respect to the question of whether they can solve their own problems’.

Figure 3.4

Operationalization of separation of regulatory and operational tasks



Norm value: *The separation of regulatory and operational activities should be as low as possible, given the context of the MDTMs, so that it allows participants of the MDTM to deal with certain disturbances themselves, be able to prevent them from happening again and do not have to attain to regulators in hierarchical layers for problem solving.*

3.4 Data analysis

This study takes the socio-technical theory on structures as its starting point, applying this theory on Inter-Organizational Networks in a healthcare setting. This deductive reasoning, in which a bottom-up approach is used by using the theory of De Sitter (1994) as a starting point, fits the diagnostic nature of this study, as existing theory is applied to come to a diagnosis (Vennix, 2019). As described, this study expects that the underlying causes of issues occurring within the MDTMs are structure related, and the theory of De Sitter (1994) can help with providing structural solutions to improve the functioning of the MDTMs. These expectations, derived from theory, therefore fit a deductive approach (Bleijenbergh, 2013).

A thematic analysis was used in this research, a method for identifying, analysing and reporting patterns within the data (Braun & Clarke, 2006). The deductive, theory driven nature of this research allows for a thematic analysis that defines codes based around the operationalisation as delineated above, and with the specific goals of the network and MDTMs in mind (Braun & Clarke, 2006). The predefined observable indicators from this operationalisation and use of theory allow for a

systematic approach for the analysis of the data. Codes were attached to sections of the interview texts relating to an indicator and the goals of the network and of the MDTMs. The coding thus revolved around the predefined themes that were expected to be reflected within the data. Because of the diagnostic character of this research, interview data, and thus defined themes, occur in chapter 2 as well as in the results chapter (chapter 4). The final, translated coding scheme can be found in the appendix (section 8.5).

After conducting the interviews, they were transcribed with the use of the online teams transcribing function, and further checked with the recording and altered accordingly where needed. The finalized transcripts were sent to the respondents to verify the texts and to ask respondents whether certain alterations are needed. The interviews were held in Dutch.

3.5 Research ethics

The prioritizing of ethical communications and clear, transparent communication with participants is of high importance within the design of research. Each respondent was sent an invitation and permission form via email prior to the interview. The permission form detailed the measures taken to ensure data security and confidentiality, as well as guaranteeing anonymity, assuring that no personally identifiable information would be used. A data file was created where data was stored, which was only accessible by the researchers and supervisor, and no data was stored outside of this secure area. Afterwards, all records were deleted at the conclusion of the study.

The invitation provided a clear outline of the research objective, information about the researchers and logistical details such as time and location. Prior to each interview, participants were reminded of their rights to withdraw from the interview or decline to answer specific questions. Consent for recording the interviews was sought both through the initial permission form and verbally at the start of each session.

Post-interview, the transcripts were sent to the respondents to offer them the opportunity to alter or remove any part of their statements. The respondents were also given the option to receive the final research report, and findings of the study were shared with all participants, to ensure they were informed of the outcomes their contributions helped achieve.

Lastly, the researcher did not take any part in fabricating nor falsifying data, or present data in a beneficial way for the outcomes of the research.

4. Results

In this section, the results of the research will be discussed. This means in the context of this diagnostic research, that the actual situation regarding the goal realization of the MDTMs and the structure of the MDTMs will be delineated, by the use of interview data. Firstly, it will be analysed whether the regional MDTMs are now performing effectively, by comparing the goals of the MDTMs to the actual situation of the MDTMs in the context of the two separate networks. After establishing whether goal consensus is met, the next step in this diagnostic research is to conduct a cause analysis, which refers to finding the underlying structural causes for the realization, or non-realization of the goals. In this chapter, a description of the actual values on the parameters will be identified, and determined whether these values of the parameters are contributing to the effective or non-effective performance of the MDTMs. As mentioned, the two networks will be analysed separately, as they are still in the formation stage of forming the Breast Cancer network East of the Netherlands .

4.1 Actual situation of the MDTMs in terms of goal realization

Chapter 2 was devoted to establishing the goals of the MDTMs that contribute to the effective performance of these meetings, and thus the overall performance of the network. As stated, the main goal was to provide personal, fitting treatment plans of quality for all patients. The regional MDTMs were thus devoted to discussing the complex cases that required the expertise from multiple hospitals within the region. For these meetings to perform effectively, it was deemed important that all patients were discussed adequately, meaning that there should be enough time to discuss a single patient, to provide the most optimal, fitting treatment plan. Furthermore, it should be no issue to bring all participating hospitals together at a preferred time, and the needed expertise should be present in all these meetings. Additionally, the essence and relevance of the regional MDTMs should be known and acknowledged, so that network collaboration is fostered.

Breast Cancer network

From the interviews, it became clear that the Breast Cancer network was not really a formally established network, but more an informal effort to collaborate, working together in the form of an expert panel, and a monthly regional MDTM (respondent 1, 2024). Whilst efforts in the past were made to strengthen this collaboration, COVID-19, and the knowledge of a larger network coming soon, put a stop to that (respondent 1, 2024).

While there is a monthly regional MDTMs, there is no clear application criteria, and little awareness amongst participating hospitals of these regional meetings. Therefore, at max 6 patients are discussed every month, with most of the time only 2 patients on the list (respondent 1, 2024). Patients that cannot wait till the once a month meeting, are discussed through the expert panel, per email, with

the involved doctors of that patient. The really complex cases are referred to outside of the network, to the Antoni van Leeuwenhoek hospital, where very specialized doctors are located (respondent 1, 2024). The respondent saw the need for initiating clear application criteria and raising more awareness amongst participating hospitals, as an effort to improve the application side, and add more patients on the list (respondent 1, 2024). As the respondent mentioned, the relevance of these regional MDTMs is there, stating:

“Particularly for those patients that meeting is very important, because you have all bright minds together.....more people deserve to be on that list (respondent 1, p.11, 2024)”.

So the value is certainly there, but there has been made insufficient use of it (respondent 1, 2024).

With only a once a month regional MDTM, it should be no issue to bring the 5 hospitals together at an agreed upon date and time. However, this seemed more difficult, as the respondent mentioned that one hospital is rarely present, and finding a date and time is rather difficult (respondent 1, 2024). This could indicate a future problem with the merging together of the two separate networks, when the meetings will take place more frequently, and more hospitals will be involved. For now, it is not a serious challenge, as the other 4 hospitals are present most of the time.

Whilst the Breast Cancer network is rarely an established network, informal collaboration does take place through the expert panel. With only 2-6 patients to be discussed formally once a month, guaranteeing the quality treatment plans for these patients is very much doable, since patients get the maximum amount of attention and are discussed thoroughly and adequately. Whilst this guarantees the goal achievement of providing patients with fitting treatment plans, network collaboration is not enforced. As the respondent mentioned: *“Doing it via an expert panel email, it is different than engaging in conversation with colleagues”* (respondent 1, 2024, p.10). Through rarely making use of the network, there cannot be much said over the overall network collaboration, and whether the regional MDTMs contribute positively to this collaboration. However, what can be concluded is that through being able to discuss patients adequately, the ‘network’ is able to achieve the goal of coming to an optimal treatment plan fitting with the situation of patients. Therefore, goal consensus is met.

ARTZ network

Contrary to the Breast Cancer network, the ARTZ network is a formally established network, with over 10 years of experience. Because of this, all participating hospitals see the essence of collaborating, leading to a weekly arranged regional MDTM, in which all three hospitals are present to discuss the complex cases. Clear criteria have been made for the application of patients, which leads to a discussion list of around 5 to 10 patients a week (respondent 2, 2024). While this is significantly more than is the case within the Breast Cancer network, respondent 2 stated to have no issues in discussing all patients adequately. The meeting takes place at the end of the day, leaving

enough room to discuss the patients effectively. Because they have been doing it like this for years, the respondent saw no challenges anymore:

“You know, it is simply going well. We have been doing this for many years. And everyone is so used to it, you just know, at Thursday, 5 o'clock, I'm there. That is just how it goes” (respondent 2, p.10, 2024)”.

The respondent further goes on to mention that because there are only three participating hospitals within the network, everyone is very involved, and that the added value of the regional MDTM is really seen (respondent 2, 2024). There also seems to be no problem with the attendance of all required expertise. The respondent mentioned that in the beginning, especially the radiologist had some resistance, however the respondent thought this to be a matter of convincing one another of the added value of these meetings. Now there is no resistance anymore whatsoever (respondent 2, 2024).

It can be concluded that the formally established ARTZ network is working efficiently, with the regional MDTMs obtaining a role in this. Being a formally established network for over 10 years leads to a developed regional MDTM, with clear agreements made on the organizing of these meetings (respondent 2, 2024). The smaller scope of the network allows for adequate discussion of all complex cases, leading to treatment plans of quality, and little issues in bringing together all hospitals. While within this network, there is no academical hospital involved, and also refer to the Antoni van Leeuwenhoek hospital for the very complex cases, the network itself is very much strengthened, leading to enough patients to be discussed every week. This is very different as opposed to the Breast Cancer network , in which the network seems not as existent as it does here. Being in a network for over 10 years allows for an understanding of what is needed to come to fitting treatment plans for all patients by all parties involved, and creates a smooth collaboration with little challenges. Therefore, for the ARTZ network, goal consensus is met.

4.2 Actual situation of the MDTMs in terms of structure

This section is devoted to determining the actual values of the structural parameters as defined by De Sitter (1994). The actual values can then be compared to the norm values of the parameters as delineated in chapter 3, to see whether there is a problematic difference between the two values, leading to a problematic parameter. A problematic parameter is one that has a significant impact on the performance of an organization, in this case, the performance of the regional MDTMs (Achterbergh & Vriens, 2019). For each single parameter, the actual value will be decided for the two separate networks.

4.2.1 Functional concentration

The degree of functional concentration, as explained, referred to the degree to which operational tasks are related to all order types. For this parameter, the value can be high, i.e. ‘operational tasks are

related to all order types', or low 'the grouping of operational activities is based on specific order types' (Achterbergh & Vriens, 2019). Indicators for this parameter were the amount of patients discussed, the hospitals involved, and the required expertise present. In this research, it has been suggested that the value of functional concentration should be as low as possible given the context of the regional MDTMs, leading to the following norm value: *The parameter value of functional concentration should be as low as possible given the context of the MDTM, to decrease the variability within the MDTMs and make sure that the structure of the MDTMs are not a source of disturbance. This means that the number of order types per MDTM should be as low as possible.*

Breast Cancer network

For the Breast Cancer network, only 2-6 patients were discussed every month. This is a very low number, and was mainly due to the lack of awareness for these regional MDTMs by participating hospitals. However, due to this low number, the variability within the meetings is not high. Respondent 1 mentioned:

"Patients discussed within the regional MDTM, they really get the maximum attention, they are analysed really well." (respondent 1, p.10, 2024).

The respondent additionally mentioned that usually the same participants are present in this meeting, consisting of an oncologist, a surgeon, and a nurse specialist, with for some hospitals additionally a radiologist and pathologist. These numbers thus add up from 3-5 specialists for each hospital. This is not too high, especially since they are always the same people, who only have to be present once a month. However, because so few patients are discussed, it is the question whether all these specialists are actually required. Next to this, the respondent mentioned that sometimes not all hospitals can be present, since finding a date that works for everyone is rather difficult (respondent 1, 2024). This can be an indication that 5 hospitals might be a too high number, especially with the knowledge that they now only come together once a month. However, in the current situation, it is not a serious issue. Therefore, for the Breast Cancer network, the actual value of functional concentration does not differ problematically from the norm value as stated in chapter 3, since the few order types leads to a low variability, decreasing the chance of disturbances to occur.

ARTZ network

Similarly, for the ARTZ network, the actual value of functional concentration does not differ substantially from the norm value, and therefore does not indicate a problematic variable. With only three participating hospitals, weekly MDTMs are doable. 5 to 10 patients are discussed, and applied according to clear application criteria, including numerous metastases of the disease, men with breast cancer, pregnant women and patients up for studies (respondent 2, 2024). This list therefore only included patients that fulfil these application criteria. However, rather than clustering patients

according to these application criteria, patients were clustered according to involved hospitals (respondent 2, 2024). The value of functional concentration could be lower when patients with similar criteria are clustered together, as this creates more oversight and clarity within the meetings.

However, through only discussing a little number of patients, fulfilling a few criteria, the variability and hence the complexity of the meetings is still low, and therefore not indicating a problematic variable. The required specialists attending the meetings did not cause a problem, according to the respondent. Usually for every meeting, a surgeon, radiologist, oncologist, radiology therapist and pathologist are present. The respondent stated that:

“When we started there was some protest from the radiology department. But eventually, what counts is that you convince each other of the added value of something like that. And if everyone stands behind that, then you can organize it. And for now, you do not hear anybody about it anymore, of course” (Respondent 2, p.14, 2024).

Respondent 3 additionally mentioned that sometimes they fail to bring in a radiologist within the agreed upon time and date, because they are not available at that moment (Respondent 3, 2024). However, most of the time it works out, according to both respondents. Therefore, this does not indicate an issue for the value of functional concentration.

4.2.2 Differentiation of operational tasks

As explained in chapter 2 and 3, differentiation of operational tasks refers to the separation of production, preparing, and support activities. The variable of differentiation of operational tasks should have a low as possible value, given the context of the MDTMs, meaning that tasks include preferably preparation, support and production activities (Achterbergh & Vriens, 2019). This led to the following norm value: *The differentiation of preparation, support and production activities into operational tasks should be as low as possible given the context of the MDTM, so that tasks include preferably all types of activities. This decreases the amount of relations in the network of tasks, and with that the probability for disturbances to occur.*

Breast Cancer network

Participating hospitals within the Breast Cancer network apply their patients through sending a mail to the Jeroen Bosch Hospital. Therefore they do not make use of a centralized organization to take care of the applications or the EPD. Respondent 1 mentioned that preparation tasks and feedback tasks are done by the secretariat, which places all data from participating hospitals in a HIX portal. The hospitals that bring in a certain patient, prepare the patient and present the patient within the discussion, after which a radiologist shows the MRI scans. Then, discussion takes place, with all participants involved within the meeting. The final report of the meetings is sent back to the participating hospital through the secretariat (respondent 1, 2024). This differentiation of tasks most likely does not lead to disturbances, as a relation only exists between the participating hospitals and

the secretariat who fulfils preparation and support tasks. The participating hospitals all prepare the patient themselves, and discuss them during the meetings, and therefore also fulfil preparation and production tasks. The parameter of differentiation of operational tasks for the Breast Cancer network, is therefore not a problematic variable.

ARTZ network

Within the ARTZ network, the respondent mentioned that preparation of patients is done by the specialist that brings in the patients/applies the patient. Usually these preparation tasks are done in between tasks. The respondent mentioned that usually one patient takes 5 minutes of preparation time. While there is a nurse to support with preparation tasks, the respondent mentioned that it is important to prepare the patients that you bring in beforehand, and see the MRI scan so that a plan can be made, which can be discussed during the MDTMs (respondent 2, 2024). The discussion is more or less the same as within the Breast Cancer network. The participating hospitals all bring in their patients, present the case and then discuss it with the other participants present. Facilitating tasks and logistics are done by support staff, who are not present within the meetings, but take care of facilitator tasks, such as making sure the ICT connections are adequate, there are rooms reserved for the meetings with screens available etc (respondent 3, 2024). The specialists involved within the meetings thus take preparation and production tasks upon themselves, while support tasks are performed by others. While preferably, all tasks are done by those present within the meetings, the differentiation of tasks has not a problematic value, as there are not too many relations, since most of the tasks are done by the attendees of the meetings themselves.

With each specialist preparing their own patient, instead of everyone involved having to prepare the same patient, the process is kept simpler, and faster, with little relations within the network of tasks. The way of doing things and dividing tasks within both networks thus optimizes the process of the MDTMs.

4.2.3 Specialization of operational tasks

The specialization of operational activities entails the degree to which operational activities are split up, or segmented, into tasks covering the entire operational process (Achterbergh & Vriens, 2019; De Sitter, 1994; De Sitter et al., 1997). The indicators for this parameter were the degree to which tasks cover part of the complete operational process, number of subsequently coupled tasks in the operational process, and average cycle time per operational tasks. The value of specialization of operational activities should be as low as possible, as portrayed in the norm value: *The specialization of operational activities should be as low as possible, given the context of the MDTM. Tasks then cover a broad range of activities that deal with the complete MDTM process. In this way, the relations in the network of tasks decreases, and the probability for potential disturbances as well.*

ARTZ & Breast Cancer Network

For both networks, it can be concluded that all tasks performed by specialists taking place within the meetings are broad tasks. Preparation, presentation and discussing tasks are all done by those involved within the meetings. The hospitals that bring in patients are therefore responsible for a large part of the ‘production process’, in this case the discussion and presenting of their patient. There are about 5 minutes of discussion time for each patient, which is, according to the respondents, enough to adequately discuss the cases and come with a fitting treatment plan (respondent 1, 2024; respondent 2, 2024). For the Breast Cancer network, there is even more time, since the number of patients on the lists usually ranges from 2 to 6. Because there are not too many patients to be discussed, there are not too many subsequently coupled tasks within the meetings. This creates larger tasks, in which each participant is involved. Preparation and evaluation tasks belong to the participants as well, creating broad tasks covering a large part of the whole MDTM process.

4.2.4 Separation of regulatory and operational tasks

The separation of regulatory and operational activities refers to the degree to which regulatory and operational activities are assigned to different tasks (Achterbergh & Vriens, 2019; De Sitter, 1994; De Sitter & Den Hertog, 1997). Indicators for this variable were ‘the degree to which operational tasks had regulatory potential and the degree to which employees were able to solve their own problems. The value of separation of regulatory and operational tasks should be as low as possible, as indicated in the norm value: *The separation of regulatory and operational activities should be as low as possible, given the context of the MDTMs, so that it allows participants of the MDTM to deal with certain disturbances themselves, be able to prevent them from happening again and do not have to attain to regulators in different hierarchical layers for problem solving.*

ARTZ & Breast Cancer Network

Accordingly for this parameter, both networks obtained a low value. When asked “can you deal with certain disturbances yourself, or do you have to refer to higher hierarchical layers”, both respondents answered that they were very much able to solve their own problems and also did (Respondent 1, 2024; Respondent 2;2024). The respondents responsible for the organization of the meetings also stated the importance of letting doctors decide themselves what to do with certain issues. As respondent 3 mentioned:

“Look, we should not check something just to check. We do not hand out certificates or quality labels. We make the policy with each other..... and when something does not happen, or some house does not stick to agreements made, we make it an agenda point, and discuss it with everyone, so that new agreements can be made about a solution. That is our part. But not too tight, not too rigid, because if you do that, you push

everyone away, and the willingness, which is now very high, becomes less, because people just do not enjoy it anymore” (Respondent 3, p.14, 2024).

The respondent further on adds that when there is any kind of problem, the healthcare professionals see each other weekly within the MDTMs, and can discuss the matter then; *“If there are big things, then they do not wait long, that will just be addressed in the following MDTM”* (respondent 3, p.14, 2024). Another indication that the separation of regulatory and operational tasks are low, is the thoughts of policy makers on the organizing of the regional MDTMs when the two separate networks will merge together. As respondent 3 stated :

“This is their expertise, this is their care, these are their patients and the only thing we can do is facilitate, think along with them. Organize for them. But I cannot decide where the cutoff point should lie, they have to decide that for themselves. And if you ask that question to the Tumor Type Network, you have all healthcare professionals of the whole network represented, and they can, with each other, make up a balance of what where and what not where. So we gladly leave that up to them..... maybe we provide a suggestion on how we could do it here, but the choice is up to them. Otherwise, it will not work anyway. If we say that it is mandatory, if the board says it is mandatory, then it will not work by definition.” (respondent 3, p.7, 2024)

Additionally, respondent 5 from The Oncology Network East in the Netherlands also stated that trust within the network is more important than formal rules being thrown upon from above, and that the region should make their own decisions on how to organize the regional MDTMs (respondent 5, 2024). While a document like the Blueprint can help with regions for organizing their MDTMs, these are just guidelines, and do not have to be followed precisely.

It can be concluded that healthcare professionals within the network, but also within the MDTMs have tasks with enough regulatory power to solve certain problems themselves. The policy advisors and the organizers are there to help and support, but do not force rules upon the professionals. The Blueprint as portrayed by Radboudumc, does not have to be followed, but serves as a guideline for other tumor types/hospitals, and is more a support document than anything else. Within the network, own agreements can be made on how to organize the MDTMs, which indicates a low value on separation of regulatory and operational tasks.

4.3 Final results

As seen, both networks were able to reach the primary goals of MDTMs, namely to provide patients with the most optimal treatment plan, adhering to personal circumstances and wishes. While the Breast Cancer network still had challenges to overcome, and was rarely formally established, this goal was still realized.

In terms of structure, both networks were able to maintain low values, or non-problematic values on each parameter discussed. Therefore, there were no identified problematic variables, and

both structures are deemed adequate structures. This thus indicates that there is no gap, or no problematic gap between the desired structure compared to the actual structure, and that goal consensus is met. These results are displayed in the table below.

Figure 4.1

Results

| | Breast Cancer network | ARTZ Network |
|--------------------|-----------------------|--------------|
| Goal consensus | Yes | Yes |
| Adequate structure | Yes | Yes |

5. Conclusion

The aim of this research was to provide a structural diagnosis of the MDTMs as part of the Breast Cancer network East of the Netherlands, and discover, based on the socio-technical theory on adequate structures (De Sitter, 1994), whether there is a gap between the *desired* structure of the MDTMs and the *discovered* structure of these meetings. Through assessing the structural parameters of De Sitter (1994), in the context of regional MDTMs as a network initiative, a conclusion could be drawn on whether the adequate structuring of regional MDTMs could improve the effectiveness of these meetings. The analysed data of both networks portrays that the structure of each separate network is adequate, as all structural parameters have values close to the norm value, and are not too high. Therefore, there is not a gap, or not a problematic gap, between the desired situation regarding the structure, and the actual situation of the structure of the MDTMs of both networks. It was also clear that the networks, especially ARTZ, had efficiently working MDTMs that contributed to an effective network collaboration. Both networks were able to realize the main goal of the MDTMs, namely to provide patients with fitting care, establishing treatment plans adhering to their personal circumstances and wishes.

Therefore, it can be stated that the structure of the MDTMs in the context of these networks positively contributes to the effectiveness of these meetings. Because of the small networks, with only few participating hospitals, an efficient division of tasks, and a high regulatory potential for the involved healthcare professionals within the meetings, discussing patients can be done efficiently and adequately, whilst being able to quickly solve problems, and having the autonomy of organizing the MDTMs. This leads to an effectively organized MDTM in which the main goal: providing all patients with fitting, personal treatment plans, is very much so achieved. Through maintaining low values on the structural parameters of functional concentration, differentiation of operational tasks, specialization of operational tasks, and separation of operational and regulatory tasks, the network

was able to discuss patients effectively and efficiently. This indicates that structure, according to socio-technical theories, acts as determinant for the effectiveness of regional MDTMs. Through adequately structuring these meetings, and thus optimizing MDTM effectiveness, they positively contribute to the overall network collaboration.

While some of the parameters could be improved for one of the two, or both networks, no values on the parameters were problematic, and the structures are therefore deemed adequate. In the following section (6.1), suggestions are delineated for further improving the meetings, and hence, optimizing the effectiveness of the regional MDTMs.

6. Discussion

The objective of this study was to investigate whether the structure of regional MDTMs had an impact on the effectiveness of these meetings, and thus, whether the socio-technical study on adequate structures by De Sitter (1994) could be applied to a network level. In order to come to this conclusion, a comparison had to be made between the current situation of the regional MDTMs in terms of goal realization, and the desired situation of the regional MDTMs in terms of goal realization. After this, a gap-analysis had to be performed, to identify whether there was a gap between the desired structure of these meetings and the actual structure, through assessing four structural parameters delineated by De Sitter (1994), and operationalized in the context of the MDTMs. From this, a conclusion could be drawn on whether an adequate structure contributed to the goal realization of the regional MDTMs, or whether a problematic structure contributed to the failure of goal realization.

In this chapter, the practical and theoretical implications of the results will be delineated. Additionally, a reflection on the choices taken within this research and the limitations will be provided, and recommendations for future research will be given.

6.1 Practical implications

Concluded from this research was that both networks, in the formation stage of the Breast Cancer network East of the Netherlands, contained low values on the structural parameters of De Sitter (1994), and therefore obtained adequate structures, enabling them to reach the goals of the regional MDTMs and strengthen network collaboration. This indicates that structure, according to socio-technical theories, acts as determinant for the effectiveness of regional MDTMs, contributing to the overall network collaboration.

Applying this theory to a network level, then indicates that small, self-autonomous networks are most likely more favourable in terms of performance, than larger networks without regulatory potential. Through only a few participating hospitals within the regional MDTMs, and clear application criteria, patients can be discussed adequately and effectively, whilst keeping oversight.

Agreeing upon a date and time, in which all participants can attend, becomes less problematic because of the smaller scope of the network. Additionally, with a smaller network, and hence smaller regional MDTMs, less patients have to be discussed, and thus less subsequently coupled tasks in the operational process, and broader tasks with higher average cycle times. Letting participants perform both preparation as well as production and support tasks creates broad, coherent jobs with few relations and thus less probability for disturbances to occur. Lastly, letting healthcare professionals within the network make agreements on the organization of these meetings, gives them enough regulatory potential to swiftly and adequately deal with certain problems, and creates more motivation and willingness to collaborate within the network. It is therefore the question whether some imposed norms by institutions such as SONCOS are actually helpful, as they take away decision making from the network itself. While some overarching strategic formulation, or some form of operational regulation is needed with interferences between flows, it should be kept within the network (Achterbergh & Vriens, 2019).

Whilst the structure of both separate networks were adequate, improvements could be made to further lower the values on the structural parameters. For functional concentration, patients should be clustered on the specific application criteria. With the Breast Cancer network having no clear cut criteria at all, and the ARTZ network clustering patients according to the involved hospital, they could both improve on this matter, and further decrease the value of functional concentration.

Additionally, it can be discussed whether the required expertise present in the meetings is actually needed. With most forms of breast cancer not being too complex, the question arises whether it is necessary that there is always the same specialist required. Especially with radiologists having to be present in every MDTM, taking some pressure off these professionals by not always having to be there, would lower functional concentration, and further improve the structure of the MDTMs. Once again, norms imposed by for example institutions like SONCOS, can hinder the decision making on the required expertise attending these meetings, and can cause disturbances on for example the value of functional concentration, as well as increase the burden on certain healthcare professionals. This indicates, yet again, that decision making is best to be kept within the network, in which healthcare professionals and other support staff have the required knowledge and information available to make the most optimal decisions on the organization on these meetings.

Additionally, important to mention, is that differentiation of operational tasks could be lower, in the sense that the involved specialists perform all preparation, production and support tasks. However, with the already busy schedules of the healthcare professionals, lowering this parameter would not be necessarily optimal for those attending the MDTMs. Leaving support tasks to support staff seems to work well, as seen in the case of the ARTZ network. Whilst preparation activities should be performed by the head practitioner, certain administrative tasks could be assigned to support staff, to take some pressure off the healthcare professionals.

These are all practical implications, and suggestions for other healthcare networks and/or

tumor types to organize their regional MDTMs. With the knowledge that smaller networks most likely perform more optimally, the question arises that if these now separate networks merge together, how to organize these regional MDTMs, so that their effectiveness is maintained. All respondents agreed upon the fact that organizing weekly regional MDTMs with all 8 hospitals and the radiotherapeutic group was not doable. As respondent 5 mentioned:

“If you have to do this with all 9 hospitals together, with all patients, that just is not doable. It already costs enough time to discuss your patients, so yes, that is just not realistic and it is not necessary” (respondent 5, p.11, 2024).

Furthermore, respondent 4 mentioned another challenge with the merging, stating:

“There is a challenge in how ARTZ, how it will relate. You do not want double agenda’s for the healthcare professionals, of course..... next to this, I always find the challenge within mama, because everyone delivers the care themselves, you deal with many insights and opinions, so it is different than with other tumor types where you perform surgery at centralized places.” (respondent 4, p.4, 2024).

While all respondents stated to be open to work together, they all agreed upon an efficient layout and organizing of these regional meetings. Respondent 3 stated:

“We asked the tumor type networks to organize the MDTMs within the region, taking into account what is already there. So no redoing everything and taking it to region East, no, respect what is there, and define with each other what you want to pick up within Oncology Network East. And we believe that every tumor has their own Oncology Network East MDTM, and that consensus is there on which patients need to be discussed.”
(respondent 3, p.7, 2024)

While working together can be very much beneficial for the region, for example on research and innovation front, the question arises whether the now two separate regional MDTMs should be merged into a larger one. Keeping it small, like the formation of the ARTZ network, seems to be more beneficial and efficient.

Healthcare Networks can use these practical implications from this research to organize their regional MDTMs more effectively, and use the theory central in this thesis for adequately structuring networks within the region. While the complexity of care and certain tumor types might lead to a different layout of these MDTMs within the context of the network, the conclusions of this research can be used as an indication of whether these meetings are operating efficiently, and apply the solutions provided through these theories within the context of the tumor type network. Additionally, these outcomes can also be further applied to other forms of network care, and do not solely apply to oncology, but can extend to other fields of care. This research therefore fulfilled the practical relevance, through suggestion practical solutions for adequately structuring MDTMs within network

settings and providing healthcare networks with new insights and solutions for redesigning the structure of these initiatives, which can improve the performance of overall network collaboration.

6.2 Theoretical implications

Next to these practical implications, theoretical implications can also be provided based on the results generated from the data. It became clear that the theory by De Sitter (1994) can be used as a tool to analyse the effectiveness of regional MDTMs. Through adequately structuring the meetings, according to the structural parameters of De Sitter, suggestions can be made for optimizing the effectiveness of these meetings, so that the MDTMs can positively contribute to the performance of healthcare networks. The socio-technical theory by De Sitter (1994), is therefore not solely a tool for analysing the structural adequacy of organizations, but can also be used for analysing structural adequacy on a network level. The solutions that this theory provides to improve the structure of organizations can therefore also be applied to network initiatives, such as the MDTMs, to improve overall network performance. With the knowledge of the socio-technical theory by De Sitter (1994) providing clear, prescriptive measures to adequately design structures, this theory could serve as an addition to the more descriptive character of structural determinants for network effectiveness within social network theory literature. As clear suggestions for optimizing structures within these theories are lacking, these insights could be combined with network literature from social network studies, and could be investigated further in different network settings.

Furthermore, solutions for current issues within MDTMs were provided, yielding novel criteria for improving the quality of these meetings, adding on to the existing literature that mostly leaves out evidence-based criteria for the improvement of the MDTMs. With these structural solutions, further investigations can be made within different settings of MDTMs, for different types of care.

This research therefore filled the gap in academic literature, through providing adequate, structural solutions for improving MDTM effectiveness. The socio-technical approach on analysing the structure of MDTMs fills the gap in providing clear, prescriptive solutions for improving network collaboration, and thus adds to existing literature on social network theory that has been mostly descriptive within this matter.

6.3 Limitations & recommendations for future research

As for any study, this thesis has several limitations. Firstly, the results and implications as explained above, relate solely to Breast Cancer Oncology. While other tumor types can use these outcomes for organizing the MDTMs within the network, it is not to be said that these implications can be implemented blindly. It is not proven whether the solutions delineated above are implementable for other tumor type networks. Therefore, through investigating more tumor type networks, with different

characteristics in different contexts, the external validity could be improved. The scope of this research did however not allow for this matter. Furthermore, only 2 cases were investigated. Through investigating more cases, with different contexts, involving different expertise, the generalizability of the results could have been improved.

Additionally, only 5 people were interviewed, giving only a few primary data sources to generate results from. As respondents were either cancer specialists and/or involved within the organizing of these meetings, and no other functions or people from lower levels of the hospitals were interviewed, this could lead to potential biases. However, due to the timeframe of this research, the researcher was unable to find more respondents that had the time to participate.

Lastly, only semi structured in-depth interviews and additional documents were used as data sources. Further triangulation of data sources, including for example observations, and involving more respondents, would have increased the trustworthiness of this research.

These limitations leave room for future research on the topic of the role of structures within Inter-Organizational Networks. As mentioned in the theoretical implications, combining social network theory with socio-technical theory on structure in future research, can yield novel insights on the determinants of network effectiveness. While structural determinants for network effectiveness according to social network theory are mainly descriptive, combining these insights with prescriptive structural solutions from a socio-technical standpoint, can generate more comprehensive results on structural determinants for network effectiveness. Since the MDTMs are only a part of network collaboration, and there are many other factors to consider, socio-technical theory and social network theory can also be combined in investigating further aspects of network collaboration.

Additionally, the structural theory as delineated by De Sitter (1994) can be applied to other forms of networks, within different regions, and even different countries, providing more clear evidence on the impact of structure on network performance within different contextual settings. Socio-technical studies, like the one of De Sitter (1994) can be used for investigating different Inter-Organizational network settings, beyond the scope of goal-directed networks, and investigate for example private profit organizations, concerning the ego-centric perspective on networks within social network theory.

Lastly, zooming in on MDTM literature, the structural suggestions for improving the effectiveness of the meetings provided in this thesis, can be further investigated within different settings of healthcare. Research involving various healthcare contexts, more respondents, and data sources such as observations etc, can increase the trustworthiness of the results within this research, and can provide more clear, evidence based results on structural criteria for MDTMs in healthcare.

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8. Appendixes

Appendix 1. Final version of the interview guide (in Dutch) - Interview 1 & 2

Introductie

We zullen onszelf eerst voorstellen. Wij zijn Fransje van der Wind en Olivia Hooghordel, masterstudenten in Organisational Design & Development aan de Radboud Universiteit. We doen onderzoek naar de invloed van organisatiestructuur op de effectiviteit van zorgnetwerken. Wij onderzoeken specifiek het mammacarcinoom, voor nu bestaande uit borstkankernet en ARTZ, medestudenten binnen onze scriptiegroep onderzoeken andere tumortype netwerken binnen Onco-Oost. Olivia richt zich in haar onderzoek op de structuur van het MDO. Fransje richt zich in haar onderzoek op de structuur van de governance.

Mogen we tutoyeren? (*ja? dan overal waar "u" staat vervangen door "je"*)

Het interview duurt ongeveer 1 uur, maar u mag het interview stoppen wanneer u/je maar wilt. Ook mag u vragen overslaan indien u dat wilt. Het interview wordt geanonimiseerd. U zult het transcript na het afgelegde interview ontvangen, zodat u de kans krijgt om akkoord of geen akkoord te geven over de inhoud en de strekking. Uw naam zal niet in het uiteindelijke rapport belanden en er zal ook geen informatie in staan die naar u te herleiden valt.

Na het interview, zullen we het transcript alleen delen met onze begeleider, die toegang heeft tot de beveiligde werkmapp. We zullen het transcript en de opnames dus met niemand anders delen. We begrijpen dat het gaat om vertrouwelijke bedrijfsinformatie en we zullen hier secuur mee omgaan, zoals we in eerdere mailwisseling hebben besproken. Dit houdt in dat onze scriptie niet gepubliceerd zal worden/ niet in het universiteitsarchief komt, omdat het gaat om een vertrouwelijke scriptie.

Vindt u het goed dat we het gesprek opnemen op een voicerecorder/ geluid opnemen in Teams?

Mocht u nog vragen hebben tijdens het interview, schroom dan vooral niet deze te stellen.

Bij voorbaat hartelijk dank voor uw/je medewerking.

Interviewvragen

ALGEMEEN NETWERK (15 min max)

1. Zou je jezelf kort willen voorstellen en je rol binnen het netwerk willen omschrijven?
2. Kunt u uitleggen waarom jullie samenwerken binnen een netwerk en welke doelen jullie willen bereiken met deze vorm van samenwerking?
3. hoe zou je jullie samenwerking omschrijven? hoe ziet deze eruit?
4. Bereiken jullie de doelen die je zojuist benoemde? Waarom wel/ waarom niet?
5. Wat zijn uitdagingen binnen de samenwerking? Waar lopen jullie tegenaan? Waar zou je graag verbetering zien?

MDO (15-20 minuten)

1. Kunt u vertellen wat een MDO precies inhoudt?
2. Hoe ziet dit MDO eruit binnen het netwerk? Wat is het proces, wie zijn de deelnemers en hoe ziet de samenwerking eruit?
3. Hoe vaak vindt het MDO plaats binnen het netwerk? Zijn hier altijd dezelfde personen aanwezig, of wisselt dit af?
Moeten alle ziekenhuizen deelnemen, ook al worden er geen patiënten besproken vanuit het desbetreffende ziekenhuis?
4. Wat zijn de doelen van het netwerk en worden deze doelen bereikt?
5. Wat zijn uitdagingen die je ervaart binnen een MDO? Zijn er dingen die beter kunnen?
6. Hoe ziet de taakverdeling eruit binnen het MDO?
 - a. Hoe zijn de taken verdeeld?
 - b. Hoeveel tijd is er ongeveer voor het uitvoeren van een taak? Is dit genoeg tijd volgens u?
 - c. Is dit een efficiënte taakverdeling volgens u?
7. Hoeveel patiënten worden besproken in het regionale MDO?
 - a. Hoe bepalen jullie wie er besproken wordt binnen een regionaal MDO?

b. Worden alle patiënten in een wekelijks regionaal MDO besproken. Of een deel van de patiënten?

c. Als er veel patiënten worden besproken, hoe zie je dit voor je als de 2 netwerken gaan samensmelten? Is het dan nog haalbaar om iedereen te bespreken?

8. Als er problemen zijn waar jullie tegenaan lopen binnen een MDO, kunnen jullie deze problemen dan zelf oplossen of worden hier andere mensen/instanties bij betrokken?
9. Een norm uit het SONCOS normeringsrapport is dat een of meerdere multidisciplinaire overleggen gehouden moeten worden per week, waarin ten minste 90% van de patiënten besproken wordt. Is deze norm reëel volgens u en halen jullie deze norm? Zo niet, waarom niet?
10. Hoe zit het met de aanwezigheid van specialisten tijdens het MDO? Levert de verwachte aanwezigheid wel eens problemen op?
11. Ik kan me voorstellen dat er momenten zijn dat specialisten bij bepaalde problemen/uitdagingen mbt een patiënt snel een collega willen spreken. Is het nu zo dat er dan gewacht moet worden tot er een MDO plaatsvindt?

zo ja: is dit efficiënt volgens u? Zou dit op een andere manier kunnen?

GOVERNANCE (15-20 minuten)

1. Hoe ziet de governance van borstkankernet eruit? (let op: *cliques, centrality, density (connectedness)*)
subvragen: Hoe verdelen jullie *resources* binnen het netwerk (vrij bewegen van expertise binnen netwerk voor optimale inzet)? Hoe verdelen jullie de *kosten* van het netwerk? Zijn deelnemers binnen bkn *gelijkwaardig*?
2. Wat willen jullie met de governance bereiken? Zijn deze doelen op papier vastgelegd?
3. Hoe loopt de governance nu? Zijn er problemen waar jullie tegenaan lopen?
subvragen:
4. Wanneer een taak (bijv het houden van een mdo) een probleem oplevert hoe lossen jullie dit probleem dan op (= problemen in het operationele proces: intake, mdo, behandeling)
bijv: de kwaliteit in een deelnemend ziekenhuis niet goed wordt gewaarborgd of relevante patiënteninformatie niet goed wordt overgedragen binnen het netwerk?
5. Zijn onderlinge relaties gebaseerd op vertrouwen onderling of op formele afspraken/controle? (*governance; trust*)
6. zijn er duidelijke afspraken binnen het netwerk? (*over verwijzing binnen netwerk, standaard zorgpad, transitie patiënten binnen/tussen netwerken, mdo's (specialisten aanwezig), taken van netwerkdeelnemers, waarborging kwaliteit*)
7. Kan je elkaar als netwerkpartners snel vinden als je elkaar nodig hebt?
8. Als jullie geld nodig hebben voor iets, hoe lang duurt dat? Lukt dat om dit geld te krijgen?

9. Hoe monitoren jullie de netwerkdoelen? Wie bepaalt dat er overgegaan moet worden tot actie? om opkomende problemen te herstellen? (*governance: monitoring, assessing and acting*)
10. Hoe regelen jullie de informatievoorziening vanuit het netwerk richting de patiënt? Jullie hebben geen gezamenlijke site, hoe communiceren jullie jezelf richting de buitenwereld?

SAMENVOEGING TOT TTN

1. is het bestaan van ARTZ en bkn los van elkaar nu inefficiënt? Wat gaat de samenvoeging bieden?
2. Zijn medewerkers (bijv. artsen/onderzoekers) lager in een deelnemend ziekenhuis ook betrokken bij het netwerk/ overtuigd van het netwerk? (maken zij hier gebruik van wat het netwerk te bieden zou hebben?)

Topic lijst

- Netwerksamenwerking
- mdo
- Functionele concentratie
- Specialisatie van operationele taken
- Differentiatie van operationele taken
- governance
- Specialisatie van regulerende taken
- Separatie van operationele taken en regulerende taken

Appendix 2. Final version of the interview guide (in Dutch) - Interview 3 & 4

Introductie

We zullen onszelf eerst voorstellen. Wij zijn Fransje van der Wind en Olivia Hooghordel, masterstudenten in Organisational Design & Development aan de Radboud Universiteit. We doen onderzoek naar de invloed van organisatiestructuur op de effectiviteit van zorgnetwerken. Wij onderzoeken specifiek het mammacarcinoom, voor nu bestaande uit borstkankernet en ARTZ, medestudenten binnen onze scriptiegroep onderzoeken andere tumortype netwerken binnen Onco-Oost. Olivia richt zich in haar onderzoek op de structuur van het MDO. Fransje richt zich in haar onderzoek op de structuur van de governance.

Mogen we tutoyeren? *(ja? dan overal waar “u” staat vervangen door “je”)*

Het interview duurt ongeveer 1 uur, maar u mag het interview stoppen wanneer u/je maar wilt. Ook mag u vragen overslaan indien u dat wilt. Het interview wordt geanonimiseerd. U zult het transcript na het afgelegde interview ontvangen, zodat u de kans krijgt om akkoord of geen akkoord te geven over de inhoud en de strekking. Uw naam zal niet in het uiteindelijke rapport belanden en er zal ook geen informatie in staan die naar u te herleiden valt.

Na het interview, zullen we het transcript alleen delen met onze begeleider, die toegang heeft tot de beveiligde werkmap. We zullen het transcript en de opnames dus met niemand anders delen. We begrijpen dat het gaat om vertrouwelijke bedrijfsinformatie en we zullen hier secuur mee omgaan, zoals we in eerdere mailwisseling hebben besproken. Dit houdt in dat onze scriptie niet gepubliceerd zal worden/ niet in het universiteitsarchief komt, omdat het gaat om een vertrouwelijke scriptie.

Vindt u het goed dat we het gesprek opnemen op een voicerecorder/ geluid opnemen in Teams?

Mocht u nog vragen hebben tijdens het interview, schroom dan vooral niet deze te stellen.

Bij voorbaat hartelijk dank voor uw/je medewerking.

ALGEMEEN NETWERK (15 min max)

1. Zouden jullie jezelf kort willen voorstellen en jullie rol binnen het netwerk willen omschrijven?
2. Kunnen jullie uitleggen waarom jullie samenwerken binnen een netwerk en welke doelen jullie willen bereiken met deze vorm van samenwerking? (doorvragen: hebben de netwerkpartners allen eenzelfde doel? governance: goal consensus)
3. hoe zou je jullie samenwerking omschrijven? hoe ziet deze eruit?
4. Bereiken jullie de doelen die je zojuist benoemde? Waarom wel/ waarom niet?
5. Wat zijn uitdagingen binnen de samenwerking? Waar lopen jullie tegenaan? Waar zou je graag verbetering zien?

MDO

1. Hoe ziet het MDO eruit in de context van het netwerk?
2. Hoe draagt volgens jullie het MDO bij aan een effectieve netwerksamenwerking?
3. Hoe ziet een effectief en efficiënt MDO eruit volgens jullie? Hoe is deze georganiseerd?
 - a. Is het MDO binnen het ARTZ netwerk nu optimaal georganiseerd?
4. In een MDO worden doorgaans veel patiënten besproken, hoe waarborgen jullie de kwaliteit, dus hoe zorgen jullie ervoor dat alle patiënten een passend behandelplan krijgen?
Zijn daar kwaliteitscriteria aan verbonden?
5. ***** vertelde dat het MDO binnen het netwerk nu goed verloopt. Zien jullie nog ergens uitdagingen/punten voor verbetering?
6. Nu zijn het ARTZ netwerk en het borstkankernetwerk nog gescheiden. Hoe zien jullie het regionale MDO voor je wanneer deze worden samengevoegd? Is het wel haalbaar om alle 8 ziekenhuizen deel te laten nemen aan hetzelfde MDO?
7. De generieke blauwdruk voor een optimaal MDO, gepubliceerd door het RadboudUMC, omvat redelijk veel formele en ook gestandaardiseerde voorwaarden/criteria. Hoe kijken jullie hier tegen aan? Is het beter om netwerken zelf de autonomie te geven, of moet je voor de

efficiëntie en effectiviteit juist van dit soort voorwaardes/criteria opleggen?

Maken jullie nu gebruik van de blauwdruk? worden patiënten bijvoorbeeld aangemeld via een EPD?

GOVERNANCE

1. Op de website zegt ***** in een interview *“Ik kijk er naar uit om te verkennen hoe we de samenwerking verder voort kunnen zetten, verdiepen en eventueel uit kunnen breiden”*. Op welke manier heb je deze samenwerking verdiept en wat versta jij onder het verdiepen van een samenwerking?
(Hoe kijk je aan tegen formele afspraken in een samenwerkingsverband?)
2. Uit eerdere interviews vernamen wij dat borstkankerzorg vaak door veel partners uitgevoerd kan worden omdat het veel voorkomt en patiënten daarbij niet zozeer door participerende ziekenhuizen worden overgenomen (enkel ten behoeve van wachttijden). Klopt dit en hoe zou je dit in de toekomst willen zien?
3. Hoeveel non-routines vinden er plaats binnen de borstkankerzorg van het netwerk? Is het zo dat er binnen borstkanker vaak minder complexe gevallen zijn/ de nood tot netwerksamenwerking daardoor minder hoog is? (netwerk competences nodig)
4. Wat gebeurt er met de echt complexe gevallen? Gaan deze naar Anthonie van Leeuwenhoek?
5. Waar zie jij nog verbeterpunten binnen de samenwerking binnen het netwerk/ borstkankerzorg?/ zijn er nog problemen waar jullie tegenaan lopen?
6. Financiering: Op welke manier bekostigen jullie de samenwerking binnen het netwerk?
7. Hoe gaat het netwerk zich verhouden tov Onco-Oost (wb governancestructuur/ beslissingsvrijheid/ kwaliteitstoezicht)
8. Wie bepaalt wanneer er overgegaan moet worden tot actie indien de kwaliteitsnormen niet gehaald worden binnen een partner?

ALGEMEEN SLOT

9. Het netwerk loopt nu goed. Denken jullie dat de samenvoeging tot Onco-Oost waarde toevoegt (mbt het primaire zorgproces)?
10. Welke uitdagingen zien jullie binnen de samenvoeging met het borstkankernet tot Onco-Oost

Dinsdag 28 mei: respondent 5

8. Kunt u vertellen wat een MDO precies inhoudt?
9. Hoe draagt volgens u een MDO bij aan een effectieve netwerksamenwerking?
10. Hoe ziet een effectief en efficiënt MDO eruit volgens u ? Hoe is deze georganiseerd?

11. In een MDO worden doorgaans veel patiënten besproken, hoe waarborgen jullie de kwaliteit, dus hoe zorgen jullie ervoor dat alle patiënten een passend behandelplan krijgen?
Zijn daar kwaliteitscriteria aan verbonden?
12. Wat zijn uitdagingen die je ziet binnen regionale MDO's? Wat zijn verbeterpunten?
13. Het blijkt nu dat ARTZ en Borstkankernet los van elkaar goed opereren. Hoe zie je de samenwerking voor je als deze netwerken gaan samenvoegen? Hoe ziet zo'n MDO er dan uit volgens jou?
14. Wat ons opviel is dat beide netwerken wat informeler en ook kleiner zijn ingericht, waardoor het MDO weinig tot geen problemen oplevert. Is dit niet een idee voor andere netwerken?
15. Kunt u kort uitleggen wat er precies wordt beschreven in de generieke blauwdruk voor een optimaal MDO? Wat is het doel van deze blauwdruk?
16. De generieke blauwdruk voor een optimaal MDO bevat best wat formele en gestandaardiseerde voorwaarden/criteria. Vind je dat deze blauwdruk in zijn geheel moet worden nastreven? Of is hier ruimte voor eigen invulling?
17. Denkt u dat de blauwdruk kan helpen, wanneer de 2 losse netwerken gaan samenvoegen? Zo ja, waarom?

GOVERNANCE

1. Hoe gaat de governance structuur eruit zien? Wat wordt hierin de rol van Onco-oost? Qua kwaliteitsstandaarden bijv: ARTZ formuleert deze nu zelf.
doorvragen: Is het de bedoeling dat ARTZ en borstkankernet als twee subnetwerken blijven functioneren (mbt hoofdproces) of dienen zij echt één te zijn?
Worden doelen centraal geformuleerd? // Hoe wordt de kwaliteit gemonitord? //Hoe zal er binnen Onco-Oost met opkomende problemen worden omgegaan?
2. Hoe kijk je aan tegen het functioneren van de twee netwerken (ARTZ en borstkankernet) hoe het nu gaat?
3. Zijn er in de formerende gesprekken die jullie nu voeren omtrent governance problemen waar jullie nu tegenaan lopen?
4. Hoe wordt Onco-Oost worden bekostigd? Moeten deelnemende ziekenhuizen hieraan bijdragen en naar welke ratio?
5. Hoe verhouden beide partijen (ARTZ en borstkankernet) zich in de formerende gesprekken tot elkaar, vertrouwen zij elkaar?. Hebben zij daarbij overeenkomende verwachtingen van Onco-Oost? (*trust// gezamenlijk doel*)
6. Zijn beide partijen gemotiveerd om samen te werken onder de vlag van Onco-Oost?
7. Zie je zelf ook dat kleine netwerken werken, hoe groter het netwerk, hoe lastiger het wordt?
8. Hoe moet volgens jou worden omgegaan met non-routines binnen de borstkankerzorg? Hoe moet de samenwerking hieromtrent eruit zien?

ALGEMEEN:

Is het zo dat het ARTZ misschien minder complexe gevallen krijgen? En borstkankernet de complexere gevallen heeft (kijkend naar Radboudumc)? (voldoende expertise binnen netwerk)

ARTZ en borstkanker net werken nu goed los van elkaar, met name omdat beide netwerken wat informeler en kleiner zijn ingericht. Is dit niet een idee voor anderen? (Rol van Blauwdruk MDO hierin)

Is het een idee om de netwerken gescheiden te houden?

Topic lijst

- Netwerksamenwerking
- mdo doelen
- Functionele concentratie
- Specialisatie van operationele taken
- Differentiatie van operationele taken
- governance
- Specialisatie van regulerende taken
- Separatie van operationele taken en regulerende taken

Appendix 3. Interview invitation (in Dutch)

We zullen onszelf kort voorstellen. Wij zijn Olivia Hooghordel en Fransje van der Wind, masterstudenten aan de Faculteit der Managementwetenschappen en wij doen onderzoek naar de effectiviteit van zorgnetwerken.

Wij zullen ons de aankomende periode verdiepen in de organisatie van het Borstkankernetwerk Oost. Specifiek willen wij kijken naar hoe de structuur (e.g., de manier waarop taken zijn verdeeld) invloed heeft op de effectiviteit van het Longkankernet. Hierbij ligt de focus op de MDO's en de governance van het netwerk.

Om inzicht te krijgen in de organisatie van het netwerk zouden wij graag toegang krijgen tot interne documenten over het netwerk. U kunt hierbij denken aan documenten die gaan over de organisatie van het netwerk (m.b.t. MDO's of governance), doelen van het netwerk of verslagen van symposia en notulen van vergaderingen. Zou u ons hier wellicht bij kunnen helpen?

Verder zouden wij graag enkele interviews afnemen met medisch specialisten of programmamanagers. Onderaan deze mail hebben wij een uitnodiging voor dit interview toegevoegd die u kunt delen met potentiële respondenten. We zouden deze interviews graag eind april/begin mei willen afnemen.

Wij willen u bij voorbaat alvast bedanken voor de moeite.

Mocht u nog vragen hebben, kunt u ons altijd mailen of telefonisch contact opnemen met Fransje (tel: 06-12034569) of Olivia (06-48770224).

Hartelijke groet,

Olivia Hooghordel en Fransje van der Wind

Uitnodiging Interview

Geachte heer/mevrouw,

We zullen onszelf kort voorstellen. Wij zijn Olivia Hooghordel en Fransje van der Wind en wij zijn masterstudenten Organisational Design and Development aan de Radboud Universiteit. Voor onze master thesis doen wij onderzoek naar de invloed van structuur op de effectiviteit van het Borstkankernetwerk Oost.

Waarom dit onderzoek?

Het onderzoek bij het Borstkankernetwerk Oost maakt deel uit van een onderzoek naar de invloed van de structuur op de effectiviteit van zorgnetwerken dat de Faculteit der Managementwetenschappen onlangs in samenwerking met het Radboudumc is gestart.

In dit onderzoek wordt voor vier tumortype netwerken van het oncologienetwerk het volgende gedaan:

1. Het netwerk wordt in kaart gebracht (i.e. inzicht in doelen, deelnemers en samenwerking)
2. De effectiviteit van het netwerk wordt beoordeeld (worden doelen bereikt?)
3. De structuur van het netwerk wordt beoordeeld (de structuur is de manier waarop taken en verantwoordelijkheden in het netwerk zijn verdeeld en gekoppeld.) Uit de organisatietheorie weten we dat de structuur een belangrijke oorzaak is voor het realiseren van de netwerkdoelen.
4. We zoomen hierbij in op twee belangrijke aspecten van de structuur: het MDO en de 'governance' structuur.
5. Op grond van bovenstaande stappen kunnen we:
 - a. netwerken (qua structuur) vergelijken
 - b. Per netwerk aanbevelingen doen voor aanpassingen aan de structuur (i.c. het verbeteren van het MDO en de governance)

Als onderdeel van het onderzoek willen enkele interviews afnemen met deelnemers van het Borstkankernetwerk Oost om te achterhalen hoe zij het werken in MDO's ervaren, hoe zij de governance van het netwerk ervaren en wat zij mogelijk als verbeterpunten zien.

Wie zoeken wij? Voor dit onderzoek zijn wij op zoek naar enkele werknemers die onderdeel zijn van het Borstkankernetwerk Oost, regelmatig aanwezig zijn bij MDO's en die ons iets kunnen vertellen over hun ervaringen met het toezicht of de kwaliteitswaarborging ("governance") van het Borstkankernetwerk Oost.

Wat kunt u als deelnemer aan het onderzoek verwachten?

- Onderwerp interview: Het interview zal gebaseerd zijn op de doelen van het MDO en de doelen van de governance binnen Borstkankernetwerk Oost en of deze gestelde doelen ook worden bereikt.
- Duur: het interview zal ongeveer 45-60 minuten duren.
- Datum: het interview zal plaatsvinden eind april/begin mei. In overleg met u zal een datum en tijd vastgesteld worden.
- Locatie: het is mogelijk om fysiek een afspraak te maken op een door u voorgestelde locatie. Mocht u een voorkeur hebben voor een online interview is dat ook mogelijk.

Appendix 4. Interview consent form (in Dutch)

INFORMATIE- EN TOESTEMMINGSFORMULIER DEELNEMERS > 18 JAAR

U bent uitgenodigd om deel te nemen aan een onderzoeksproject waarin de invloed van organisatiestructuur op de effectiviteit van zorgnetwerken onderzocht wordt. Dit onderzoeksproject wordt uitgevoerd door Fransje van der Wind & Olivia Hooghordel, master studenten Organisational Design & Development aan de management faculteit van Radboud Universiteit.

De procedure omvat een interview. De vragen gaan over de structuur van het MDO en van de governance van het ARTZ netwerk. Het gesprek duurt ongeveer 1 uur. Het interview zal worden opgenomen op een geluidsband en via Teams. Uw contactgegevens [naam, e-mailadres] worden veilig opgeslagen door de hoofdonderzoekers.

Vertrouwelijkheid van de onderzoeksgegevens

De onderzoeksgegevens zullen anoniem worden gemaakt / onder een pseudoniem worden vastgelegd en veilig opgeslagen volgens de richtlijnen voor het beheer van onderzoeksgegevens van de Radboud Universiteit en conform de Algemene Verordening Gegevensbescherming (AVG). Alle persoonlijke gegevens worden zo snel mogelijk verwijderd.

1. Er zal een via de universiteit een beveiligde omgeving worden aangemaakt die alleen toegankelijk is voor de onderzoekers en begeleider; en ook alleen gedurende de duur van het onderzoekstraject. Alle data (documenten, interviews – opnames, uitwerkingen etc) komen daar te staan en worden verwijderd als het onderzoek klaar is. Documenten / data zullen nooit op andere computers etc. worden bewaard. Een beveiligde mail voor de overdracht is ook aan te raden.
2. De deelnemende organisaties beslissen wat van de resultaten openbaar gemaakt mag worden / gedeeld met anderen. Dat houdt o.a. in zij beslissen of de thesis vertrouwelijk is (en dus niet in het archief wordt opgenomen), en dat zij toestemming moeten verlenen als we de gegevens gebruiken voor een vergelijking met andere netwerken. Vertrouwelijkheid betekent ook dat de eerste en tweede beoordelaar gebonden zijn aan een vertrouwelijke behandeling van de thesis.

Vrijwillige deelname

Uw deelname aan dit onderzoek is vrijwillig. Dit betekent dat u uw deelname en toestemming op elk moment tijdens de periode van het verzamelen van gegevens kunt stopzetten en intrekken, zonder opgave van reden. Tot zes weken na deelname kunt u uw onderzoeksgegevens /persoonsgegevens/ contactgegevens laten verwijderen door een verzoek te sturen naar [olivia.hooghordel@ru.nl en/of fransje.vanderwind@ru.nl].

Meer informatie

Heeft u vragen naar aanleiding van dit onderzoek, nu of in de toekomst, neem dan contact op met [Olivia Hooghordel en/of Fransje van der Wind] (telefoon Olivia: [0648770224]; telefoon Fransje [0612034569; e-mail Olivia: [olivia.hooghordel@ru.nl]; e-mail Fransje [fransje.vanderwind@ru.nl])

Als u klachten heeft over dit onderzoek, neem dan contact op met de onderzoeker *of*

Neem contact op met de [vertrouwenspersonen voor academische integriteit](mailto:vertrouwenspersonen@ru.nl) via email: vertrouwenspersonen@ru.nl

Of

Neem contact op met de Commissie Wetenschappelijke Integriteit van de Radboud Universiteit. De secretaris van de commissie is Mr. M. Steenbergen, (m.steenbergen@bjz.ru.nl of 024 3611578) Bestuurlijke & Juridische Zaken.

Meer informatie over de Commissie Wetenschappelijke Integriteit vindt u hier: <https://www.ru.nl/over-ons/overradboud/integriteitsbeleid/wetenschappelijke-integriteit/>

TOESTEMMING:

Door ondertekening van dit formulier

- heeft u deze informatie gelezen en begrepen
- stemt u vrijwillig in met deelname
- bent u ten minste 18 jaar

Als u niet wilt deelnemen aan het onderzoek, kunt u de deelname weigeren door dit formulier niet te ondertekenen

Appendix 5. Coding scheme (translated to English)

| Codes | Themes |
|--|---|
| <ul style="list-style-type: none"> • Through bundling forces of three hospitals, ARTZ delivers excellent oncological care. • Through sharing and initiating innovations and scientific research, ARTZ works on improving care. • With the goal to improve care for patients, but also to learn from each other. • When you are with 3 hospitals, you have much data. We can do scientific research with that. • Besides, you can also centralise the highly complex care. | <p>Network goals</p> |
| <ul style="list-style-type: none"> • Yes and also because it occurs weekly, you have short lines in which you see each other. • If you ask me, where lies the core of network collaboration? Then I think it lies in the MDTMs, yes. • But generally, it brings way more connection because you know each other and see each other in the MDTM. • Well, we want to make treatment plans for every patient, and we succeed. You can make a treatment plan for everyone and the nice thing is, you have a sort of internal second opinion. | <p>MDTM goals</p> |
| <ul style="list-style-type: none"> • The most important, I think, in the collaboration, is how you do it. Look, we are doing it with three hospitals and that is already pretty complex. With 8 hospitals, I don't think it is doable. It is just too big. • So that is already a manco, that it is very hard to find a date on which everyone is available. • For us, now, what can be better is more awareness with all doctors in all 5 hospitals, that it exists and that more patients will be applied. Because now I sometimes have the idea that you can find more patients every month than 5, that have something special. • Alleen de toevoeging van de juiste patiënten en dat MDO die kan beter. | <p>MDTM challenges</p> |
| <ul style="list-style-type: none"> • Weekly there is a MDTM in which by far not all patients are discussed. • We discuss patients for certain studies, men with breastcancer, pregnant patient. Well yes, we have a list like that. • And that is how you get a list with patients that will be discussed by the whole team. And those are always patients with a specialty, so not someone with a type of breastcancer of which everyone knows what do to. • Usually we begin per hospital, so we begin and that's how you go on. | <p>Functional concentration</p> |
| <ul style="list-style-type: none"> • But you know, if I bring in the patient, I want to have seen the MRI. I first want to make a plan and discuss it in the MDTM. • I can ask the nurse to prepare it, and it sometimes happens. • We make sure that there are rooms in the hospital available, with screens. We make sure that the ICT connections are adequate, if that does not go well. That there is a contract made with videobutler, so that they can share images. • The secretary prepares the MDTM, so putting the data from other hospitals in the HIX portal. That is something, with cut and paste, that is easily done. | <p>Differentiation of operational tasks</p> |
| <ul style="list-style-type: none"> • We have 5 minutes per patient, in which the radiologist shows the images and the medical specialists brings in the case, and presents it. And then you have time for discussion. • You discuss your own patient. So if I have a patient on the list from Rijnstate, then I bring in that patient and then the other patients from Doetichem are presented by the doctor from Doetichem. • I take 5 minutes per patient with preparation, to really go in depth on the case. • Because we usually have less patients on the list, you can easily go over time. No one will say: "lets quit" | <p>Specialization of operational tasks</p> |