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Participatory Research as Knowledge Translation Strategy

An ethnographic study of knowledge co-creation

The Faculty of Medicine,

University of Oslo

2017

Series of dissertations submitted to the
Faculty of Medicine, University of Oslo

ISBN 978-82-8377-016-2

Cover: Hanne Baadsgaard Utigard.
Print production: Reprosentralen, University of Oslo.

Thesis summary

This thesis is concerned with knowledge translation in participatory research.

The background for the thesis is the concerted efforts within medicine and health care to promote uptake of research-based knowledge in practice, under the heading of knowledge translation (KT). As a field of research, KT has rapidly grown into an industry that has received major funding and had a far-reaching impact. A part of this is a proliferating use of participatory research strategies, research in which knowledge users are involved in the research process. Participatory research is promoted as an efficient KT strategy; it is expected to generate research results that are more relevant and actionable in practice, which will ultimately lead to increased use of research-based knowledge in practice. Central KT concepts, models and frameworks have, however, been criticized for postulating limited theoretical views on knowledge and translation. A key point in the critique is that existing KT frameworks prioritize research to uncover 'what works' and thus fail to understand 'what happens'. In the case of participatory research being used as a KT strategy, very little is known about how participatory research generates translation of knowledge, or what kind of knowledge is created.

This study aims to provide insights about the actual processes of knowledge translation in participatory settings. The primary question that this study asks is: How is knowledge translated in participatory research?

The study is an ethnographic investigation of a participatory research programme within primary healthcare physiotherapy; clinically-based physiotherapists were involved in the entire research process. Data was collected through observation of 12 collaboration meetings, interviews with participants, and documents that were disseminated before, in and after meetings.

The overall research question enabled me to take an open approach to an empirical setting in which knowledge and translation unfolded by means of verbal communication, namely in collaboration meetings held in a participatory research project in primary health care physiotherapy. Early encounters with this setting generated a sub-question: How can knowledge that is communicated verbally be operationalized as observable, describable and analytically available entities?

The study resulted in three papers:

I. The first paper was published as a study protocol. However, the contribution of the paper extends beyond that of a regular study protocol, as it presents the development of a novel conceptual framework for the study of knowledge translation in verbal communication. In the paper, the concepts of (1) knowledge objects, (2) knowledge forms and (3) knowledge position are presented as analytical concepts to help identify and understand knowledge translation in verbal communication. These analytical concepts lay the groundwork for an analysis of knowledge, translation and participation that focuses on the micro-level of knowledge processes and understands these as entangled in certain ontological and epistemological contexts.

II. The second paper adds a fourth analytical concept to the analytical framework presented in the first paper: (4) knowledge task. The analytical framework is in turn used to identify a rhetorical strategy by which knowledge becomes translated in the discussions between researchers and clinicians. We call the strategy 'relevance testing', and it allows participants to translate knowledge in terms of identifying how they may possibly use the knowledge in the contexts of research and clinical practice. The paper illustrates both the potential and the limitations of this translational strategy. While the participants never explicitly addressed the translational work they were doing, we suggest that if they were provided with conceptual terms to address these processes, they could address and further develop this translational strategy.

III. The third paper is concerned with epistemic premises of knowledge co-creation, defined as 'collaborative knowledge generation by academics working alongside other stakeholders' (Greenhalgh, Jackson, Shaw, & Janamian, 2016, p. 392). The paper focuses on an exemplary case of a dilemma that occurred during the participants' work with co-creating a tool for registering patient information. The analysis demonstrates the difficulties of integrating the different knowledge interests and epistemic requirements that the participants have for the knowledge they want to produce. On the basis of the analysis, we suggest that participatory research is a

context in which different epistemic criteria for knowledge co-exist, and that while there are high hopes of improved practical relevance of co-created knowledge, little guidance is provided as to which epistemic criteria should apply to knowledge co-creation in participatory research.

The final discussion focuses on an established and recent KT model known as integrated knowledge translation (iKT). Findings presented in the three papers are used to critically examine the iKT concepts of knowledge and translation followed by some ideas and suggestions about how these may be extended.

Acknowledgements

I first encountered the field of KT research as a research assistant with the task of gaining an overview of the field. At that time, I had only recently finished my master's degree, for which I had been working with theories concerned with the construction of scientific knowledge. With my recent experience of the combination of philosophical and anthropological inquiry into knowledge production fresh in mind, the field of KT seemed strikingly dominated by instrumental and rationalist concepts of knowledge and the process of knowledge translation. I was therefore intrigued to discover an emerging critical stream of research that engages with questions of knowledge and knowledge production in KT research and that draws on philosophical and social sciences perspectives, and inspired me to make further investigations.

This study came to involve several diverse 'journeys of discovery'. In it, I have explored the landscape of KT research, an empirical site and the method of ethnography, as well as a wide-ranging and varied theoretical landscape. There are several people whom I want to thank for contributing to make the study possible and for helping me through the process.

First, I want to thank the participants in FYSIOPRIM for granting me access to their work. Without your cooperation, this study could never have been done. Crucial for making the study happen was also the PI in FYSIOPRIM, Nina Vøllestad, who contributed to this study as a co-designer of the project, a co-author, and as a co-participant in the reflection meetings where many important insights were gained.

Thanks go also to the Faculty of Medicine for funding for the study, and for providing an inspiring working environment for me during the last five years. I also had the pleasure of staying at Södertörn University and the Centre for Studies in Practical Knowledge for a year, and I owe thanks to my colleagues there for offering me a place among them.

I would not have had the opportunity of doing this study had it not been for my supervisors Eivind Engebretsen and Kristin Heggen. I am forever grateful for their wise supervision. Their competent and constructive input has been crucial to the development of this study. Their advice was always given in an engaged, caring and supportive manner and covered the full range of problems, from theoretical specifics and substantial analysis to mapping out the

academic world. They have generously shared their knowledge and experience in support of me and my work, and for that I cannot thank them enough.

I also want to thank my colleagues at the Department of Health Sciences for many academic and social events during the last five years. Three researcher groups have meant a lot for the development of this study and for me as a researcher: the Medical Humanities group (Humanioragruppa), the 'Disease Prestige' project group, and the KNOWIT researcher group have been arenas for fruitful and challenging discussions from which I have learned so much.

Thank you also, Gina Fraas Henrichsen, for sharing an office and countless discussions on an exceptionally broad range of topics. I have greatly appreciated your advice, critique, support and encouragement. Thank you also for reading and commenting on drafts, and for editorial work in the final phase. A special thank you goes also to Ann-Helen Henriksen for reading and commenting on drafts of the summary.

Being a PhD candidate is a true privilege, but it can also be challenging. I want to thank my family and friends who have taken interest in my work and shared the ups and downs. I especially owe great thanks to my loving crew consisting of my parents and bonus parents who always support me in any way needed.

Finally, to Erik and Thea: thank you for your endless support and encouragement! But also for the pleasure of our home, where work matters less than the minor and major events of our daily life.

Oslo, November 2016

Ida Lillehagen

List of papers

Lillehagen, I., Vøllestad, N., Heggen, K., & Engebretsen, E. (2013). Protocol for a qualitative study of knowledge translation in a participatory research project. *BMJ Open, 3*(8). doi:10.1136/bmjopen-2013-003328

Lillehagen, I., Heggen, K., & Engebretsen, E. (2016). Unpacking knowledge translation in participatory research: a micro-level study. *Journal of Health Services Research and Policy, 21*(4), 217-222. doi:10.1177/1355819616635683

Lillehagen, I., Heggen, K., & Engebretsen, E. (2016). Critically exploring epistemic premises to knowledge co-creation in a participatory research project: A micro-level analysis of an epistemic dilemma. Submitted to *Evidence and Policy,* May 2016. Resubmitted November 2016.

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1. Introduction and background

1.0. Introduction

This thesis is about knowledge translation. More specifically, it is concerned with how knowledge is translated in a particular setting, namely that of participatory research. Participatory research is performed in many ways, but in general, the term describes research in which actors with knowledge about the setting or phenomena that are being studied are involved in research activities (Phillips, Kristiansen, Vehviläinen, & Gunnarsson, 2013).

Within medicine and health care there is a widespread concern about the lack of research utilization in practice, namely in the delivery of medical and health care services (Graham et al., 2006). This has been conceptualized as a 'knowledge gap' between what is known and what is done, often referred to as the know-do gap (Graham & Tetroe, 2007). While this concern is not new, it has gained attention under the headline of Knowledge Translation (KT), and has developed into a field of research concerned with issues of knowledge translation between health care research and practice. A part of this development is the proliferating use of participatory research practices as a knowledge translation strategy that is based on expectations that knowledge user involvement in practice will generate research results that are more relevant and actionable in practice, and thus lead ultimately to increased use of research in practice (Bowen & Graham, 2013; Ginsburg, Lewis, Zackheim, & Casebeer, 2007; Kothari & Wathen, 2013).

In the KT literature, the term integrated knowledge translation (iKT) has been introduced as a separate KT term which integrates KT strategies based on dissemination of research, and knowledge co-production between researchers and decision-makers (Bowen & Graham, 2013). The term 'knowledge user' may refer to 'potential knowledge users', defined as all those who might use, benefit from, or be impacted by the results of the study, or to 'integrated knowledge users', defined as partners involved in generating research results. Knowledge users can include other researchers, health professionals, patients, patient organizations, or the wider public (CIHR - Canadian Institutes of Health Research, 2016b, p. 15) .

As a field of research, KT has become highly diverse and far-reaching, encompassing a multiplicity of terms, models, frameworks and methods (Woolf, 2008).This has led to conceptual ambiguity, as terms with partially overlapping content are being used interchangeably (Graham et al., 2006). It is therefore difficult to delineate this field. It is, however, possible to make a distinction between two main streams of KT research. The first stream is principally concerned with establishing KT and promoting the use of KT concepts and frameworks. The Canadian Institutes of Health Research (CIHR) has been a key actor in the development of this tradition. Scholars and organizations affiliated with CIHR have developed central concepts and models of KT and published landmark books and papers on the subject. I will refer to this stream of research as the dominant KT tradition. The other stream of KT research has been critical of the dominant KT models and frameworks; the critique has primarily been concerned with limitations in the theoretical underpinnings of the dominant KT concepts, models and frameworks.

Several calls for research that could 'open up the black box' of KT processes and provide insight into how knowledge actually becomes translated have emerged from the critical stream of KT research (Greenhalgh & Wieringa, 2011; Kitto, Sargeant, Reeves, & Silver, 2012; Rycroft-Malone, 2007). Especially considering the considerable amount of effort and resources devoted to KT, it is crucial to expand and supplement the dominant KT frameworks.

1.1. Research objectives and questions

Against this background, it became a primary objective in this study from the outset to study KT in a way that would capture its processes as they unfold in order to generate new knowledge about how KT actually works. The insights generated from the empirical study are in turn used to further theorize knowledge translation in participatory research, with particular emphasis on iKT.

I chose participatory research as an empirical setting in which to examine KT. As described above, support for participatory research practices as KT strategy is currently growing, because participatory research is expected to generate KT through the involvement of knowledge users in the research process. The process is often referred to as collaborative co-production of knowledge (Bowen & Graham, 2013; Greenhalgh, Jackson, et al., 2016;

Kothari & Wathen, 2013). The evidence to support the efficiency of participatory research as KT strategy is inconsistent, however, and there is little knowledge about how knowledge is actually translated when researchers and knowledge users co-produce knowledge in settings of participatory research (Brett et al., 2014).

This study was thus set up as an ethnographic study of a participatory research programme, called Physiotherapy in Primary Care (abbreviated FYSIOPRIM). In FYSIOPRIM, clinically based physiotherapists were involved in the entire research process.

We chose to focus the investigation on regularly held meetings in FYSIOPRIM called coordinator meetings, where all participants attended and discussed issues related to the research project. The aim of the study was to investigate processes in which knowledge was translated by observing collaboration meetings, interviewing the participants and reading documents that were disseminated before, in and after the observed meetings. In turn, we wanted to contribute insights into how knowledge is translated in this setting. **The overall research question was thus formulated as follows: How is knowledge translated in participatory research?**

Knowledge, translation and participation are thus key phenomena of the study. The study shares an interest in these topics with the field of KT; however, the dominant KT concepts and frameworks are not appropriate tools for an ethnographic study of KT processes, as these models in general aim to facilitate KT processes (Greenhalgh & Wieringa, 2011; Kontos & Poland, 2009).

Moreover, the material generated in this study to a large extent contains representations of verbal communication. When we encountered the empirical setting, it became evident that capturing and describing knowledge that is embedded in verbal communication would not be a straightforward endeavour. Our investigation of knowledge translation thus came to involve a theoretical investigation of how knowledge could be identified and analysed in settings where knowledge is primarily presented in verbal communication. A sub-question in this study thus became: how can knowledge that is presented in verbal communication become operationalized into observable, describable and analytically available entities?

It thus became crucial for the rest of the study to develop a conceptual framework within which knowledge translation processes in verbal communication can be identified and described, which also constitutes a theoretical contribution to further studies of knowledge production and use in participatory research. The terms 'knowledge object', 'knowledge form', 'knowledge position' and (added at a later stage) 'knowledge task' are used to operationalize knowledge into observable entities when presented in verbal interaction. Hence, the concepts were used to analytically capture and make sense of the knowledge processes that were observed during coordinator meetings and interviews.

The development of the concepts was inspired by scholarly work within the tradition of Science and Technology Studies (STS). STS is a highly diverse tradition, but is generally concerned with the issues of knowledge production and use as entangled in broader social circumstances (Sismondo, 2010). In this study, I draw on theories that describe the use and production of knowledge as ontologically and epistemologically embedded practices in order to further understand the processes of knowledge translation in participatory settings. The focus of my inquiry is on the micro-level of participatory research, more specifically on what Bruno Latour and Steve Woolgar call 'the most intimate aspect of knowledge production' (1986, p. 151).

In contrast to much of the existing work on knowledge translation, this study does not intend to provide a universal framework or model for knowledge translation. Rather, it aims to generate empirical insight into knowledge translation processes in participatory research that may in turn be utilized to supplement and further develop current notions of participatory research as a KT strategy.

In the following sections in this chapter, I will provide a brief introduction to the field of KT research. As noted above, this is a field of research that has expanded rapidly into a highly diverse and far-reaching enterprise which is difficult to delineate clearly. I will restrict my presentation to the two major bodies of KT literature that I mentioned above: The first is a body of normative and applied KT research that has focused on the objective of facilitating and accelerating KT and ultimately closing the know-do gap. This literature has been important in terms of establishing the rationale for the wide-reaching incorporation of KT in health research and care, and also in terms of producing KT models, frameworks and

strategies. The second body of literature that I will present contains critical perspectives on KT. This literature has played an important role in the critical examination of the theoretical assumptions underpinning dominant KT models and frameworks, as well as suggesting new theoretical resources for the study and practice of KT. An important consequence of the critique is an increased emphasis on mutuality in knowledge production and interactions between knowledge producers and users, which has propelled the use of participatory research approaches as a KT strategy. I will provide a brief overview of the landscape of participatory research as a KT strategy in the last section of this chapter.

1.2. Background – an introduction to the field of knowledge translation

The field of KT research has emerged as a response to widespread concerns about scarce and delayed utilization of research-based knowledge in practice. With evidence-based medicine (EBM), new ideals for clinical decision making were established: 'Tradition, anecdote, and theoretical reasoning from basic sciences were to be replaced by evidence from high quality randomized controlled trials and observational studies, in combination with clinical expertise and the needs and wishes of patients' (Greenhalgh, Howick, & Maskrey, 2014, p. 1). EBM quickly revolutionized not only medicine, but also other health care disciplines, which adopted the principles under the term evidence-based practice (EBP) (McKibbon, 1998). The paradigm of EBP gave way to an increased focus on scientific research as basis for health care decision-making and evaluations of research utilization, which soon identified a lack of research-based knowledge in medical and health care practice. For instance, as reported by Graham et al. (2006), researchers in the US and the Netherlands estimated that, according to the scientific evidence, 30% to 45% of patients did not receive care and that 20% to 25% of the care provided was either not needed or potentially harmful. Hence, the EBP movement has no doubt contributed to drive the work of identifying knowledge 'gaps' between research and practice.

The identification of the know-do gap in turn generated a focus on translational research (TR) within medicine. This was promoted by the Institute of Medicine (IOM) Clinical Research Roundtable in 2003, where a model of translation was presented consisting of two phases of research progressing first from basic science to clinical science, and then from clinical science to public health impact (Drolet & Lorenzi, 2011). Currently, the model expounds

three translation periods: basic science translated to clinical efficacy (T1); efficacy translated to clinical effectiveness (T2); and, finally, effectiveness translated to health care delivery (T3) (Drolet & Lorenzi, 2011).

Biomedical TR has predominantly focused on T1 and T2, and problems of translation are often framed as obstacles between basic sciences and human or clinical trials: 'bridging this chasm is crucial to success if we want to use laboratory data to finally cure diseases in humans' (Wehling, 2006, p. 91). However, in KT research the focus has mostly been on T3 and issues related to the adoption of research-based knowledge in practice, formulated as: 'underuse of efficacious treatments, erroneous use of treatments and overuse of inefficacious or unevaluated treatments' (Funabashi, Warren, & Kawchuk, 2012). Ultimately, then, lack of KT may represent an issue of patient safety and health equality (Ward, House, & Hamer, 2009).

The logic of a one-way progression from science to practice that is postulated in the medical translational chain was extended into much KT research. Nevertheless, although the one-directional idea is highly contested and has largely been abandoned in favour of bi-directional or dynamic models within the setting of T3, the stepwise and directional logic is deeply embedded in many KT models.

The identification of the translational gaps represented a powerful justification for the concerted efforts to propel the further development and implementation of research-based knowledge. The problem has also been framed in economic terms; billions of dollars invested in basic research are lost because the path to further development, and ultimately, implementation is slow and unpredictable (Graham et al., 2006; Grimshaw, Eccles, Lavis, Hill, & Squires, 2012). The problem of translation has been framed in a variety of ways, with the result that it seems to have repercussions to almost any health care practice; as formulated by Steven Woolf: 'translational research means different things to different people, but seems important to almost everyone' (Woolf, 2008, p. 211).

The field of KT has been incorporated into a vast range of medical and health care disciplines and practices. The far-reaching justification of KT has turned the field into an 'industry' which includes several peer-reviewed journals, nationally funded research institutes and

projects dedicated to translational research, courses at the pre- and postgraduate level in several major universities worldwide and an extensive body of scholarly literature.

A vast amount of literature has been produced which is characterized by ambiguity in its terminology and conceptual content. In 2010, McKibbon et al. (2010) identified over 90 terms for the process of implementing research-based knowledge into practice. The terminology is partly overlapping: differences in terminology may be ascribed to disciplinary and geographical preferences rather than to differences in the phenomena that are described (Davis, 2006; Straus, Tetro, & Graham, 2009). In the United Kingdom and Europe, this process is often referred to as implementation science, while in the United States several terms are used interchangeably, such as 'research use', 'knowledge transfer and uptake', and 'dissemination and diffusion' (Ellis, 2014).

1.2.1. KT definitions, models and strategies

Because KT research is multi-disciplinary and has porous boundaries with other adjacent scholarly fields of research, it is difficult to pin down. Consequently, there are many definitions of KT in circulation. By far the most used is the definition provided by the Canadian Institutes of Health Research (CIHR) which describes KT as 'a dynamic and iterative process that includes the synthesis, dissemination, exchange and ethically sound application of knowledge to improve health, provide more effective health services and products, and strengthen the health care system' (CIHR - Canadian Institutes of Health Research, 2016a, p. 1). Another definition provided by Sharon Straus et al. offers a more general description of KT as 'the methods for closing the gaps from knowledge to practice' (Straus et al., 2009, p. 165).

The actionable primary objective within KT research is also echoed in most KT models and frameworks. In 2009, Ward et al. (2009) identified 28 different frameworks for KT processes. From these they identified five recurring steps: (1) problem identification and communication, (2) knowledge/research development and selection, (3) analysis of context, (4) knowledge transfer activities or interventions, and (5) knowledge/research utilization. They then suggested that these five steps may be arranged into one of three knowledge processes: (1) a linear process, (2) a cyclical process, or (3) a dynamic and multidirectional process. Linear KT models have a sequential progression from a defined starting point

towards an end-point. The processes may be unidirectional or bidirectional. In cyclical models, there are individual components of steps of translation which are also linked in a stepwise progression, and the process can be described as interactive and continuous. The dynamic KT models emphasize contextual aspects of the process, and focus more on the relationship between producers and users of research.

Cyclical models were identified as the most frequently used (Ward et al., 2009). One much used model is the Knowledge to Action (KTA) cycle, a framework that was based upon a review of 30 KT approaches as an effort to create coherency in KT models (Straus, Tetroe, & Graham, 2013a). The KTA framework postulates the process of KT in two main phases: (1) the knowledge funnel and (2) the action cycle. The knowledge funnel consists of three elements: knowledge inquiry, knowledge synthesis and knowledge tools/products. The action cycle involves the following seven steps: identifying the knowledge-to-action gaps, adapting knowledge to local context, assessing barriers to knowledge use, selecting, tailoring and implementing interventions, monitoring knowledge use, evaluating outcomes and sustained knowledge use. Hence, while the components of the process are linked in a stepwise progression, the description of the model depicts the process as iterative, complex and dynamic and depending on the context of application (Straus et al., 2013a; Straus et al., 2009).

Another model generated within the Canadian KT community is the 'linkage and exchange' model, which emphasizes the importance of linking research-based communities with communities of potential users. Linkage and exchange activities could either be seen as researchers 'pushing' the knowledge out towards knowledge users or as practice communities 'pulling', in terms of initiating linkage with research communities (Lomas, 2000).

As the field of KT has enjoyed major engagement and funding, a multiplicity of KT strategies and tools have been developed. In accordance with the structure of push and pull, strategies and tools are often designed to address push or pull barriers or to facilitate linkage and exchange. Push strategies focus on tailoring research messages and disseminating these to an identified, targeted audience of knowledge users, while pull strategies are designed to facilitate knowledge use in the practice context, for instance by providing access to research databases or by appointing internal 'knowledge champions' who will have a designated role

in the knowledge uptake (Mitton, Adair, McKenzie, Patten, & Perry, 2007). Linkage and exchange strategies are strategies that typically aim to provide points of contact and interaction between research communities and potential knowledge users (Lomas, 2000).

Several reviews have been conducted with the purpose of identifying and evaluating the most efficient strategies and tools (Bero et al., 1998; Grimshaw et al., 2012; LaRocca, Yost, Dobbins, Ciliska, & Butt, 2012; Scott et al., 2012). These illustrate a substantial evidence base for assessing knowledge translation activities, but several of the reviews emphasize that the complexity of terminology, interventions and contexts, as well as poor reporting of research, makes synthesis and review a complicated matter. Reviews of KT interventions seem to be inconsistent in terms of identifying effective KT strategies. Already in 1998, Bero et al. (1998) conducted a systematic review of interventions to promote the implementation of research in practice, which measured 'improved professional performance'. Their results suggest that 'passive' strategies, such as educational written material and meetings with educational purposes, are less effective.

Interactive strategies, on the other hand, such as interactive educational meetings, audit and feedback, use of local opinion leaders and patient-mediated interventions, can have mixed or consistent effects. They found that having multiple interventions and reminders (manual or computerized) was consistently effective. Scott et al. (2012) made a review of 32 studies that applied both single and multiple KT strategies within dietetics, occupational therapy, pharmacy, physiotherapy and speech-language pathology. They show that the majority of studies showed mixed effects on primary outcomes.

While the review does not identify a 'best practice', the results indicate, in line with Bero et al. (1998), that educational strategies such as using written material and teaching with the purpose of increasing knowledge and skill are consistently ineffective. Scott and colleagues (2012) do emphasize, however, that the studies they reviewed were generally characterized by poor methodological quality and outcome reporting bias, which weaken the results. LaRocca et al. (2012) conducted a systematic review of KT strategies in public health. They reviewed five primary studies (four RCTs and one interrupted time series analysis) in which outcomes were measured in terms of changes in both knowledge and practice. They find also that access to pre-processed or printed material is generally less effective. However, in

contrast to Bero et al. (1998), they find that in some circumstances, single KT strategies are as effective as multiple ones. The authors conclude, however, that there is no KT strategy that is effective in all contexts. This is also a key point made by Grimshaw et al. (2012), who conducted an extensive review of KT strategies. They state that 'the relative importance of knowledge translation to different target audiences will vary by the type of research, and appropriate endpoints of knowledge translation may vary across different stakeholder groups' (Grimshaw et al., 2012, p. 1). It seems that while reviews of KT strategies remain incomplete and unable to identify consistency in KT best practices, they are consistent in pointing to the importance of including contextual aspects of the interventions, such as characteristics of the knowledge that is translated, providers, participants and organizations (LaRocca et al., 2012; Scott et al., 2012). Such reviews thus offer a contrast to the universal framing of KT concepts and models. The focus on contextual and situational aspects of KT has also been an important point within the more critical KT literature. In the following section I give a brief presentation of some of the main points in the KT critique.

1.3. The critique of KT research

While the dominant discourse in KT research has aimed to consolidate KT as a beneficial and necessary practice within healthcare, there has also been a growing body of critical KT literature which questions the theoretical assumptions underpinning the primary KT concepts and frameworks.

A recurrent critique of KT pertains to the aforementioned universal framework which promotes KT concepts as 'neutral' and independent of the contexts in which they are applied (Greenhalgh & Wieringa, 2011; Kitto et al., 2012). Related critical points are for instance the epistemic assumption that knowledge is equivalent to objective, impersonal research findings that are detached from the scientists who generate it and the practitioners who use it. Such a realist notion of knowledge echoes a view that privileges empirical knowledge over other forms of knowledge, thus making it the standard for what counts as 'evidence' (Doane & Varcoe, 2008; Estabrooks, Thompson, Lovely, & Hofmeyer, 2006; Rycroft-Malone, 2007).

Moreover, the notion that there is a know-do gap between knowledge and practice implies that knowledge and practice are separate domains and can be empirically and analytically isolated (Greenhalgh & Wieringa, 2011). Related to this is the critique posed to the push/pull

division which tends to direct attention to the actors within the spaces of research and practice and frame the barriers to translation as individual barriers – such as researchers' lack of dissemination to and contact with knowledge users, or practitioners' resistance to change practice (Kitto et al., 2012). Even if these barriers are framed in organizational or structural terms, the logic of KT ultimately assumes a rational actor who, provided with the best evidence, would apply it. The critics thus suggest alternative theoretical perspectives that allow for more holistic investigations where actors are set in relation to the complex circumstances in which decisions are made (Doane & Varcoe, 2008; Greenhalgh & Wieringa, 2011; Kitto et al., 2012). For instance, Greenhalgh and Wieringa (2011) argue that practitioners and patients are unique, which results in unique clinical encounters. While KT models treat clinical encounters as consisting of a line of instrumental, rational decisions in which scientific evidence may be applied, they claim that practices as well as patients are unique and will entail clinical reasoning beyond the assessment of evidence.

KT research has focused on evaluation of KT in terms of 'behaviour change', 'changed practice' or 'knowledge use/implementation' (Kitto et al., 2012; Kontos & Poland, 2009; Petticrew, 2015). Kitto et al. (2012) suggest that this practice is a result of the vested interests that drive KT research: 'it could be argued that KT research has a vested interest in seeing its scientific knowledge put into practice to correct the practices of others, and by extension, a vested interest in evaluating success of its scientific practices'. Hence, 'inside' KT research has few incentives for further expanding its theoretical foundation. However, scholars are increasingly drawing on perspectives from the humanities and social sciences in order to expand the notions of KT, as applied and evaluative studies may seek 'what works' but fail to provide insights into 'what happens' (Doane & Varcoe, 2008; Petticrew, 2015; Rycroft-Malone, 2007). The critique has thus identified 'black boxes of knowledge translation' and in turn sparked repeated calls for research which can generate insight into the actual processes of KT.

1.4. Participatory research as KT strategy

An important point raised by KT critique is that the emphasis on push and pull barriers echoes a unidirectional progression from science to practice which fails to capture that there may be important barriers related to the lack of interaction between these different domains. Critics have pointed out that KT should not merely be understood as the

application of scientific research in practice, but also entails the practitioners' interaction with the knowledge (Greenhalgh & Wieringa, 2011; Petticrew, 2015). It has also been suggested that lack of utilization may also be a matter of 'square pegs meant to fit round holes' (Freeman & Sweeney, 2001, p. 1100). In other words, the research fails to address research questions that can make a difference to issues that are relevant in practice.

These assertions have resulted in an increasing focus on the lack of interaction between research and practice (Ginsburg et al., 2007). In turn, this has promoted a growing interest in KT strategies that facilitate interaction between knowledge producers and knowledge users. Moreover, while the evidence base for effective KT strategies remains fragmented, there are some reviews indicating that KT strategies that facilitate interaction are more promising in terms of generating research utilization (Grimshaw et al., 2012; Innvaer, Vist, Trommald, & Oxman, 2002; Mitton et al., 2007).

This shift towards a more interactionist focus within the KT field may be seen as part of more far-reaching developments within the systems of knowledge production. Gibbons et al. (1994) refer to this fundamental shift in the systems of knowledge production as a new knowledge production mode – 'mode 2 of knowledge production'. According to Gibbons et al., Mode 2 knowledge production demands that researchers leave their ivory towers and engage in collaborations with other arenas of society to identify and address societal challenges. In turn, our expectations of science are changing; science is now expected to reach beyond academia and to provide actionable answers to societal problems. A part of this mode of knowledge production is the development of new constellations – boundary-crossing collaborations, often entailing involvement of knowledge users. In this landscape there also emerges a strong democratic ideal growing out of strong user organization involvement, for instance in disability research and HIV research, which work under powerful slogans like 'nothing about us without us' (Charlton, 2006). An important ideal is that scientific research is made to include the voices and perspectives of those who are being studied, often by including knowledge users as 'co-researchers' (Phillips et al., 2013).

Hence, the now flourishing use of participatory research practices has grown out of demands for more applicable and actionable research, as well as for a democratization of knowledge production. While participation may take many forms and have different purposes, it is often

described as co-production (Phillips et al., 2013). In turn, co-production is often described in a harmonized language as entailing a practice of collaboration based on dialogue between the different participants (Phillips et al., 2013). Participatory research strategies are now proliferating, as they are widely supported by agencies responsible for governmental policy making and funding (Barnes & Cotterell, 2012; Frankham & Tracy, 2012; Kothari & Wathen, 2013). Many funding agencies are now promoting such strategies aggressively, requiring that knowledge users be named as collaborators on funding applications and/or as 'relevance reviewers' of scientific grants. In Norway, the Norwegian Research Council explicitly stated in The Programme on Health, Care and Welfare Services Research (HELSEVEL), that knowledge users should be included in all research in which they could be relevant. If the researchers consider such inclusion irrelevant, this has to be explicitly explained. Hence, the use of participatory research is becoming an ideal standard, strongly supported by national and international funding agencies (The Research Council of Norway, 2016).

Within KT, the increasing use of participatory research strategies has generated the delineation of a separate KT paradigm called integrated KT (iKT). In an attempt to separate iKT from other KT strategies, Graham and Bowen (2013) introduce a model which outlines the 'iKT paradigm' in contrast to what they refer to as 'the dissemination paradigm' of KT. In iKT, knowledge translation takes place as research is being produced by involving knowledge users in the production process. The dissemination paradigm, in contrast, describes translation of knowledge that takes place after the knowledge production phase. Hence, iKT may be said to integrate some of the critiques of conventional KT research (which is now delineated in contrast to iKT as 'end-of-grant KT') by capturing the dynamic aspects of KT, as well as the importance of including the target context (Straus, Tetroe, & Graham, 2013b). However, even if iKT strategies can be shown to be an effective means of KT and to contribute to 'closing the gap' between research and practice, it does not move KT research out of the category of 'what works' research, which continues to exclude investigations into the actual processes that take place in these settings.

1.5. Summary and further outline of the thesis

This presentation of the field of KT is intended to provide the background for this thesis. The point is thus not to give a complete overview, but to point out some of the developments that are significant to this thesis. A central point in this study is the limited theoretical

foundation on which KT is built – and the critical strand of writing that has illustrated this, thereby inspiring further work to develop and expand notions of KT. While the theoretical perspectives on KT are broadening, this field still relies predominately on instrumental, rationalist ideas of knowledge flow (Kontos & Poland, 2009) which reproduce the 'what works' ideal, without necessarily addressing the question of what it is that happens in KT processes.

So this is the terrain in which I place this thesis. My aim is to provide insight into the black box of KT by ethnographically studying the co-production of knowledge. The study investigates participatory research as a KT strategy; a place where the process of translation is expected to take place in the knowledge production process. To make sense of what I have observed during my fieldwork, I find inspiration and support in a research tradition that has provided extensive investigations of science and technology, with a particular focus on knowledge production processes. The STS tradition offers theoretical resources by which these processes may be opened up and seen as inextricably tied to, or entangled in, both local and more overall socially produced circumstances. This perspective thus provides a theoretical point of departure for my study of participatory research as a KT strategy.

In the next chapter I elaborate on the theoretical framework that has guided this study. Chapter 3 contains a presentation of the research methods and sketches out a timeline of the research project, as well as discussing some of the important methodological considerations that were made in the different phases of the study. Chapter 4 provides a summary of each of the three papers that have been generated from this study, while Chapter 5 is a discussion of the overall results of this study and how these results can contribute to expanding current notions of KT in participatory settings.

2. A theoretical framework for the study of knowledge translation in a participatory research project

2.0. Introduction

Having presented the topic, the overall research questions and the aims of this study, I will now present the theoretical framework of the study. This entails presenting certain understandings of the world, and of how we can know something about the world, which guide the questions that are asked in this study and the approach by which we seek to answer these questions.

As presented in the first chapter, participatory research strategies often entail a normative goal of translating knowledge as means to produce more practice relevant research. One of the explicit goals of FYSIOPRIM was to produce knowledge that is valuable to clinical practice (Vøllestad, 2011). This study, however, does not primarily aim to facilitate knowledge translation, but seeks to understand knowledge translation in the setting of participatory research. I ask how knowledge is translated in participatory research with the goal of opening up knowledge production processes that have so far been black-boxed and to describe how the participants in participatory research 'go about talking and doing research' (Knorr-Cetina, 1981, p. 14).

In this chapter I present the theoretical resources that have enabled this particular knowledge goal. Most of the literature that I present and refer to can be situated within the diverse and interdisciplinary research tradition of Science and Technology Studies (STS). I begin with briefly presenting the historical development of social studies of science (science studies) with emphasis on how this tradition provided important theoretical starting points for the STS research tradition.

The STS literature is vast and it resists neat categorization into clear-cut traditions or disciplines. Intellectual writings relate to each other, build on each other and move away from each other. When I situate my own study in this complex terrain I present and refer to some parts of the STS literature, while I leave other parts out. Moreover, different parts of the literature have contributed in different ways. Some have opened up ways of viewing the world and our knowledge about it, others have helped me to develop a theoretical position on the investigation of an empirical site, and yet others have provided me with concepts to

analyse the data that is created by the investigation of a particular piece of the world. The goal of the presentation in this chapter is to display how the different theoretical resources have inspired and guided this study.

2.1. Science and technology studies

STS research draws on ideas and concepts from many other intellectual traditions. Relating to this body of literature entails presenting a compound of bits and pieces from other traditions and disciplines like history and philosophy of science, anthropology, rhetoric of science, ethnomethodology and micro-ethnography. Because science and technology permeates almost all levels or arenas of the social world, the scope of STS is almost boundless (Sismondo, 2010). Ranging from micro-level to global level studies, STS research has been conducted in such diverse areas as policy-making, law, health, global industry, engineering, natural sciences, climate and environment, fishery, farming, and the public policy, just to mention a few (Sismondo 2010).

Current STS research may be roughly divided into two streams of research (Hess, 2012; Sismondo, 2010). The first of these is characterized by its focus on questions about the nature and practice of science and technology. Viewing science and knowledge production as socially embedded practices, this line of work addresses questions about scientific methods, distribution of scientific credibility, the enactment of scientific cultures, and the development of new scientific disciplines. The second stream addresses questions about the implications of science and technology for society, especially they relate to peace, security, community, democracy, environmental sustainability and human values. Hence, STS research encompasses an extremely diverse range of topics and has an extensive scope. There are, however, some key theoretical assumptions about the practices of scientific activity and how we may study these practices that constitute a framework for my approach to the study of knowledge translations. My presentation of this field will be restricted to the literature that I have used in some way in relation to this study; I recognize that this requires me to exclude other scholarly work that may be thought of as central.

2.1.1. The development of a constructivist view on scientific practice

In the introductory outline of the study I made a distinction between the aim of KT research, namely to do knowledge translation, and my own aim of understanding knowledge translation.

With this demarcation, I place myself within a tradition of research that is concerned with scientific practices and the entanglement of science in societal circumstances. This division relates to a line of scholarly work which goes a long way back in history. STS studies are said to start from philosophical claims about science that radically oppose long-standing notions of science as an objective discovery of nature (Sismondo, 2010, p. 10). However, this starting point developed from controversies about the demarcation of science from non-science within the philosophy of science.

2.1.2. Theoretical preliminaries

In the beginning of the 20th century, the empiricism debate established new arguments about the demarcation of science and non-science. The Vienna Circle was a central group in this debate. It consisted of influential philosophers who were eager promotors of logical positivist arguments (Hess, 2012). Logical positivists maintained that the meaning of a scientific theory is exhausted by empirical and logical considerations of what could verify it (Sismondo, 2010, p. 2).

Karl Popper was at the time loosely affiliated with the Vienna Circle and shared the view that scientific method should separate science from non-science. However, Popper radically suggested that all observation is selective and theory-laden: that is, there are no objective or theory-free observations. In this way, he disrupted the idea that science can be distinguished from non-science on the basis of its inductive methodology. To the contrary, Popper suggested that there is no unique methodology specific to science. Science, he stated, is like virtually every other human activity and consists predominantly of problem-solving. Popper proposed that science can only be assessed on demarcation criteria based on agreement or convention; that is, scientists should agree on the epistemic ideals that science should aspire to (Baune in Popper, Døderlein, & Baune, 2007, p. 10).

Popper's conventionalist argument thus draws attention to the role of definitions and the social processes involved in agreeing on the methods for producing scientific knowledge

(Hess, 2012). This argument was an important inspiration for Thomas Kuhn's famous book *The Structure of Scientific Revolutions* wherein he introduced the term 'paradigm'. He says:

> The study of paradigms is what mainly prepares the student for membership in the particular scientific community with which he will later practice […] Men whose research is based on shared paradigms are committed to the same rules and standards for scientific practice. (Kuhn & Hacking, 2012, p. 11)

While the concept of paradigm has been used in at least twenty-one distinct ways (Kuhn & Hacking, 2012, p. 18) Kuhn's emphasis was on the importance of the broad paradigm, which establishes fundamental definitions, methods, and problem areas within which empirical research occurs (Hess, 2012). His descriptions of the activities of scientists and the structure of scientific development as paradigm shifts were read as providing empirical support for the conventionalist argument that science is founded on agreement on the set of rules (norms) which guide the production of scientific activity. His research was thus seen as illustrative of how science is fundamentally socially shaped. Within the STS tradition, Kuhn's work thus paved the way for empirical investigations of the social aspects of production of science (Kuhn & Hacking, 2012).

Another scholar who contributed to the theoretical establishment of scientific practice as an object of social sciences inquiry was the physician and biologist Ludwik Fleck. Fleck's book *Genesis and Development of a Scientific Fact* (Fleck, Trenn, & Merton, 1979) was first published in 1935, and was a pioneering study within the history of science. Thomas Kuhn writes in his foreword to the 1979 edition of *The Structure of Scientific Revolutions* that he was acquainted with Fleck's book when writing his own and that he was inspired by Fleck's concerns with 'changes in the gestalts in which nature presented itself, and the resulting difficulties in rendering 'fact' independent of 'point of view' (Kuhn in Fleck et al., 1979, p. 9). Fleck concerned himself with the epistemological and social aspects of scientific practices. His term 'thought collective' denotes the collective mindset of members of different scientific practices and he applies the term to explain, for instance, the difficulties of transmitting ideas between these different thought collectives. In this way, Fleck's book also renders open to empirical inquiry the social and epistemological work that takes place in scientific practices.

The work of philosophers and historians like Popper, Kuhn and Fleck thus established a theoretical starting point for social scientists interested in the production of science, which is often referred to as constructivist. In general, constructivist perspectives argue that reality is not pre-existing, but that it is socially created through human discourse, organization and practices (Berger & Luckmann, 1967). In the case of social studies of science, these perspectives are used to approach science as socially constructed; the idea that science also depends on human and social practices enabled rejection of the empiricist and realist notion of science as rational and objective discovery based on observation (Hess, 1997). Hence, the development of a constructivist position enabled social scientists to argue that science does not mirror a pre-existing reality, but that science, too, is a mere construction that rests upon socio-material practices and discourses that make certain representations of reality possible and warranted while marginalizing others (Latour & Woolgar, 1986).

2.1.3. STS approaches to the study of science

The development of constructivist social science studies was an important precondition to the emergence of STS scholarship as a body of empirical social scientific research into the practices of science. Social studies of science took an empirical turn as social scientists began to empirically inquire into the socio-material aspects of scientific work (Collins, 1985; Hess, 1997). In these empirical studies, the demarcation between doing and understanding science becomes prominent. In their influential book *Laboratory Life – The Construction of Scientific Facts*, which was first published in 1979, Latour and Woolgar state that they had no intention of conducting or improving science by science's own standards (1986, p.23). Rather, their goal was to further embed science in social and human practice, relate science to other societal arenas and show science's dependence upon human interaction that was not restricted to the 'scientific realm'. Hence, they did not adopt or take at face value the scientific standards of the sciences that they studied, but shifted the attention towards the non-scientific aspects of scientific practice – aspects that science does not itself render open for inspection. Latour and Woolgar's laboratory study approach was a pioneer in the stream of laboratory studies that emerged in the late 1970s and is regarded as an important foundation to the further development of STS research (Sismondo, 2010, pp. 106-107).

My approach towards the study of knowledge translation in participatory research settings is inspired by this approach. I bracket the KT field's own basic assumptions in order to maintain

an open approach that generates open-ended questions about knowledge translation in participatory settings. The point is to enable an approach for understanding whatever knowledge translation entails in this particular empirical setting, as opposed to evaluating it by the internal standards of KT research.

2.1.4. A critical approach to knowledge translation

Distancing the goals of this study from the normative goals of KT research raises the questions of what my goals are. I stated in the introduction to this chapter that the aim of this study is to provide descriptions of actual processes of knowledge translation in the setting of participatory research. Does this mean that the overall aim of the study is 'merely descriptive'? This question was asked in one of the coordinator meetings in which I presented the study.

Normative research is often set in a dichotomous relationship to descriptive research. Normative research involves relating to an ideal standard, often with the aim of bringing the real more in line with the ideal. Descriptive research is not driven by ideals, but aims to observe, describe and categorize. This study's goal is thus partly descriptive, as it aims to describe actual processes of knowledge translation.

Nevertheless, this approach to the practice of participatory research as a KT strategy also reflects a critical goal, as well as the goal of examining the theoretical assumptions underpinning current KT models and frameworks. The ultimate goal is to use empirical descriptions of how knowledge translation is done 'in the wild' (Callon & Rabeharisoa, 2003) to make philosophical arguments about theories of knowledge translation.

2.1.5. Anthropology in the study of scientific practices

Laboratory studies of science have applied ethnographic approaches to sites of scientific practice (Sismondo, 2010, p. 106). Ethnography may be diverse in method and goal, but most often involves the study of human culture at various levels (Streeck & Mehus, 2005).

Latour and Woolgar suggest that the cultural anthropological approach offers a distinct view on the laboratory and the activities that go on there. By taking the stance of an anthropologist, the observer may treat the laboratory as an exotic place, and the scientists that inhabit it as members of a foreign tribe (Latour & Woolgar, 1986, p. 17). An anthropological approach thus opens up the study of scientific practice and culture

(Sismondo, 2010, p. 107). The anthropological ethnographic approach emphasizes the daily work routines, communication, rituals and family life of foreign spaces. Hence, it gives a particular access to micro-level studies of the socio-cultural specific behaviour that members of the culture display (Latour & Woolgar, 1986).

'Cultural membership' is also a key term in the enterprise of ethnomethodology, which is described as the study of socio-cultural groups' methods for making sense of their social order (Hess, 2012; Lynch, 1997). Harold Garfinkel, who is considered the founder of the ethnomethodological tradition, studied juror members in court. He was intrigued by 'the jurors' uses of some kind of knowledge of the way in which the organized affairs of the society operated' (Garfinkel in Lynch, 1997, p. 4). By this, he meant how the jurors learned culturally specific ways to make sense of their mandate as jurors: methods for establishing matters of fact, developing evidence chains, determining the reliability of witness testimony, establishing the organization of speakers in the jury room itself, and determining the guilt or innocence of defendants.

Ethnomethodology has thus inspired the STS tradition with its emphasis on collective and culturally specific logics and the development of particular 'members' methods' which may be studied by investigating culturally specific knowledge, language, ways of reasoning, taxonomies and social norms. Another important influence from the ethnomethodological approach was the researcher's position as a 'foreigner' or 'outsider', unfamiliar to and unskilled in local methods and sense making.

The inspiration from anthropology and ethnomethodology established culture as a prominent term in STS research. For instance, STS researchers have referred to scientific practices as belonging to different epistemic cultures (Knorr-Cetina, 1999).

But what is culture? In Karin Knorr Cetina's book *Epistemic Cultures – How the Sciences Make Knowledge*, she says the following about culture: 'Culture, as I use the term, refers to the aggregate patterns and dynamics that are on display in expert practice and that vary in different settings of expertise. Culture then refers back to practice in a specific way' (Knorr-Cetina, 1999, p. 8). She continues to explain how science studies' notions of culture foreground practices by focusing on the actions involved in making knowledge.

2.1.6. Culture as practices

STS concepts of culture thus pertain first and foremost to culture-specific practices. How does such concepts relate to this study of knowledge translation in participatory research?

Within KT research and other research traditions concerned with knowledge exchange, such as organizational theory, knowledge management, and policy studies, the terms *cultures* and *communities* have been used to delineate between different organizational 'areas' . For instance, knowledge gaps between these areas, for instance between research and clinical practice, have been explained in terms of cultural differences in a 'two-communities' logic (Caplan, 1979). Participatory research may thus be seen as involving encounters between different cultures. Annemarie Mol points out specifically that plurality is an inherent potential in the notion of culture; it enables us to slice reality into plural (Mol, 2002, p. 77). In this logic, physiotherapy research may be one culture, physiotherapy practice another. How does this study relate to such a distinction?

This notion gives explanatory power to the concept of culture. By calling research and practice different cultures one can explain gaps between them as cultural differences. Critics of this view point out that such a mode of explanation may exaggerate internal similarity and external difference (Wehrens, 2014). However, this mode of explanation requires that one have an a priori definition of the cultures as coherent wholes. Studying culture as practice enables a different take on these divisions. Knorr Cetina emphasizes the 'patterns and dynamics that are on display in expert practice and that vary in different settings' (Knorr-Cetina, 1999, p. 8). In this view culture becomes an object of empirical study and not a pre-defined whole. This is also my view on the 'epistemic cultures' that are involved in FYSIOPRIM, and I will return to this when I describe how I have analysed knowledge in this setting.

2.1.7. What does micro-level mean?

Latour and Woolgar utilize the term 'anthropology' to highlight three aspects of their study (1986, pp. 27-29). So far I have addressed only one of them, which is the potential of viewing science as an alien tribe and the focus on practices that is embedded in this approach. Secondly, 'anthropology' highlights the preliminary and non-exhaustive nature of the accounts that are made by use of ethnographic fieldwork. Thirdly, they emphasize the

situated nature of research based on ethnographic methods (Latour & Woolgar, 1986). How to understand this? Clearly, Latour and Woolgar's comments pertain to limitations of the knowledge they are offering. But they also make suggestions about the level of empirical examination that is enabled by an anthropological approach.

In the social sciences, a distinction is often made between three societal levels: micro, meso and macro. The micro-level often refers to the study of human interactions and practices (Streeck & Mehus, 2005). Ethnographic studies often entail investigations at this level. Within sociology there are several pertinent streams of literature, including microethnography, ethnomethodology, and symbolic interaction. These traditions all zoom in on small and restricted sections of the world, as opposed to entire societies or more overall societal and global phenomena (Streeck & Mehus, 2005, p. 381). Using this division, this study can be situated at the micro-level as I study a small section of the world. The coordinator meetings in FYSIOPRIM are sites where I can investigate knowledge translations. The practices involved in this work, which are the main object of my study, are situated practices. This means that they take place then and there and in the particular circumstances that the meetings make up and are made up by.

So the situated nature of ethnographic research has something to do with the 'level' of the empirical site, which in turn has important implications for the accounts that can be made on the basis of the empirical investigation. Latour and Woolgar address the relationship between the empirical investigation made at the micro-level and the possibilities and limitations of the generated accounts by pointing to the preliminary nature of the accumulated empirical material elicited from ethnographic fieldwork (1986, p. 28).

2.1.8. Studies of practices in verbal interaction

What is it that we aim to find out by zooming in on the smallest of scales in our studies of human interaction? In science studies, interactions are studied as important parts of the making of science. Latour and Woolgar call this – that is, human discourse, formulation of statements, rhetorical manoeuvres – 'the most intimate aspects of fact construction' (1986, p. 151).

The accounts that are provided by Latour and Woolgar (1986) include descriptions of how the scientists do science in a way which enables them to present it as facts or discoveries.

However, as Latour and Woolgar readily admit, their accounts are preliminary and were generated within a particular setting. This 'in situ' nature of the accounts however, Latour and Woolgar argue, makes them suited to highlight the craft character of science (1986, p.277). In order to discuss issues of the possibilities and limitations of the accounts that can be given from the empirical investigation in this study, I will now focus in on the empirical site.

What are the coordinator meetings and how can I get to know something about knowledge translation from observing them? I describe this in detail in the methods section, but in brief, the coordinator meetings were where the participants in FYSIOPRIM gathered to discuss their research. Hence, in my observations I was observing discussions. In these meetings, the use and production of knowledge mostly took place in or through discursive acts. Now, this may seem a contrast to the emphasis on practice that I have promoted in this chapter. Authors like Latour and Woolgar and Knorr Cetina study natural science laboratories. Mine are meeting rooms. Does that mean that practices are not present? Annemarie Mol has an important point in this regard:

> A social scientist who wanted to know about the practicalities of living with bad leg arteries could follow Mr. Gerritsen [an informant] while he does what he can and bumps up against what he cannot. Jeannett [research assistant] and I did not undertake such an ethnography. But it is still possible for us to get to know some of the things we would have seen if we had followed him in his daily routine. We can listen to Mr Gerritsen as if he were his own ethnographer. Not an ethnographer of feelings, meanings or perspectives. But someone who tells how living with an impaired body is done in practice. (Mol, 2002, p. 15)

Mol's point is that when listening to people's stories, it is possible to listen for the events that they tell about. It entails putting on hold interpretations of feelings or perspectives, and looking instead for the materiality of the events that are told about – the things that were done, the objects that were involved in doing them. Someone who tells about living with an impaired body in practice will also give insight into the knowledge that is embedded in this practice.

With this perspective, the researchers and practitioners brought worlds of practice into the discussions that took place in the meeting rooms. The discussions that I had access to as they unfolded, and still have access to through recordings, take me to sites and events that

are not limited by the meeting room walls; rather I am told about treatment rooms, corridors where patients take walking tests, hospitals and waiting rooms, as well as into labs of basic science and virtual spaces of new testing tools, and researchers' offices.

When talking about their practices, the participants also told about their knowledge, which is embedded in those practices. Hence, the study of micro-level interaction between the participants provides access to the knowledge embedded in their discourse.

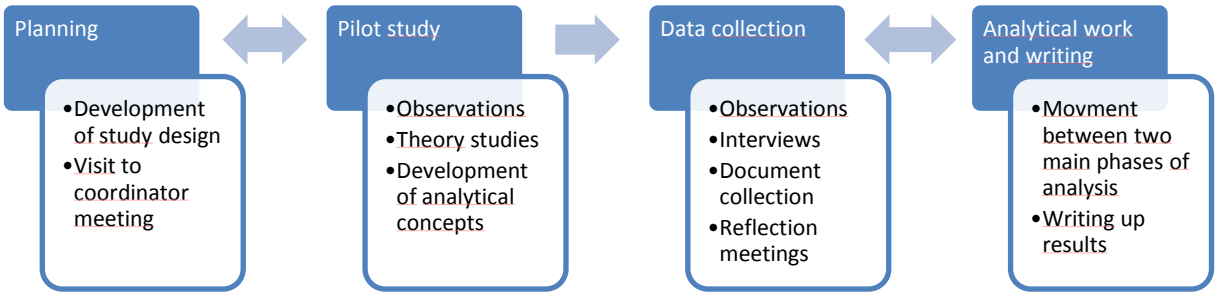
Of course, the accounts that were given in the meetings were restricted to those that can be verbally articulated. They also tell not about what the participants do in their practices, but in what ways they found it relevant to talk about their practice in the setting of a participatory research project. Then again, I do not investigate the researchers' and practitioners' practices as such, but how they present and translate knowledge about their practices in the setting of a participatory research project. This knowledge was embedded in, and could thus be teased out of their descriptions of their practices.

3. Research methods

3.0. Introduction

In this chapter I outline the study's methodological framework. Compared to the previous chapter, it takes a practical turn. The goal is to describe what has been done and why it was done that way during the course of the project. Writing up the methods thus entails formulating and putting together pieces of stories about the actions, reflections and choices that were made. The purpose is to provide insight into the 'inner logic' of the project: to lay out the methods so that the reader can understand the study that has been conducted and how the results came to be. Because such a description cannot be exhaustive, I have chosen stories and issues that have contributed significantly to the direction of the research process, guided by literature that describes and discusses research methods. I will also refer here to some of the studies that were cited in Chapter 2 as theoretical inspiration for this study. These studies also provide detailed descriptions of ethnographic studies of knowledge. Within the STS tradition there are extensive writings that reflexively discuss the STS research methods and the possibilities and limitations of the knowledge that is produced. This literature offers methodological guidance. STS studies that emphasize interaction and discourse in the production of knowledge have been especially important sources to methodological inspiration and reflection.

This chapter draws up a timeline of the study that is divided into four phases, which also constitute the main headings: (1) planning, (2) pilot study, (3) data collection, (4) and analytical work and writing.



The distinction of four phases makes for a neat presentation, but in reality, the study sometimes entailed moving back and forth between phases, as well as engaging with some of the phases simultaneously. In this chapter the phases are presented sequentially, and under each heading, I will present issues related to research methods and ethics that were dealt with during these phases.

3.1. Planning

This study began with the goal of contributing to the emerging body of critical writing on knowledge tradition that focuses on knowledge translations in action; that is, what it entails in term of social and epistemic aspects. When planning my study, I considered several methodological approaches and empirical sites. One possibility that was considered was literature studies of existing KT research. Another option was qualitative empirical studies of knowledge translations in clinical encounters and in mandatory interdisciplinary meetings related to patients on authorized sick leave.

At this time, FYSIOPRIM had been initiated by researchers in the Department of Health Sciences at the University of Oslo. Having received funding, the programme was in a process of formalizing the collaboration with clinicians. Some of the subprojects that would be included in FYSIOPRIM were already running, while some were still in the planning stages or just starting. Together with the principal investigator (PI) in FYSIOPRIM, Nina Vøllestad, and my supervisors Eivind Engebretsen (EE) and Kristin Heggen (KH), I began exploring the possibilities of doing a study on the knowledge translations in these settings. FYSIOPRIM involved clinical practitioners in all phases of the programme and it was an explicit goal to integrate clinical perspectives into the research (Vøllestad, 2011), and it was therefor considered a good case for investigation of actual knowledge translation processes.

3.1.1. FYSIOPRIM

FYSIOPRIM was initiated by researchers at the University of Oslo in collaboration with one Norwegian university, two Norwegian hospitals, and six primary healthcare physiotherapy institutes. The project period of FYSIOPRIM was from 2010 to 2015 (Melby, 2015, p. 12). The programme was established to meet challenges in physiotherapy research in primary healthcare and thus emphasized research questions considered relevant to primary healthcare with a particular focus on musculoskeletal conditions. It also emphasized

development of long-term structures for closer collaboration between research and primary healthcare. Primary goals were (1) to develop models for research and documentation within primary healthcare physiotherapy and ultimately build sustainable structures for research in this setting, and (2) to tie together knowledge derived from clinical studies, epidemiological studies and experimental designs based on various research methods (Vøllestad, 2011). FYSIOPRIM included several research projects ranging from basic and experimental research to clinical studies, as well as studies of applicable methods for clinical practice and research.

Although FYSIOPRIM was initiated by researchers, it was designed to be a participatory programme with a 'bottom-up' approach, where clinicians' perspectives and local knowledge were not only acknowledged, but formed the basis for the research and planning (Vøllestad, 2011).

3.1.2. The researcher group

The researcher group in FYSIOPRIM consisted of researchers located at two universities, and two hospitals (of which one is a University Hospital). The researchers belonged to acknowledged research groups that had already conducted several studies with national and international impact prior to the establishment of FYSIOPRIM (Vøllestad, 2011). They worked with a range of different methods and within various research traditions. All of the researchers were physiotherapists, except one, who was a physiologist. Some of the researchers had extensive experience from clinical practice, and their academic professional experience ranged from PhD students to professors. Although they were familiar with performing research that involved or took place in outpatient clinics, the researchers had little prior experience with involving clinicians in research in this format.

3.1.3. The clinician group

To ensure that the research was not only based on research competence and knowledge, but also heavily influenced by the clinicians, FYSIOPRIM was organized with a structure of formalized collaboration between researchers and primary healthcare clinicians (Vøllestad, 2011).

Six physiotherapy institutes within primary healthcare were invited to participate in the programme. Each institute appointed a clinical coordinator who served a dual role (Vøllestad,

2011). First, they served as a link between the research project and the other clinicians in their own clinic. The second role of the clinical coordinators was to attend to the coordinator meetings.

All of the six clinical coordinators worked clinically in primary healthcare. Their patient groups were diverse: some saw a wide range of patients, while others were more specialized on specific patient groups or conditions, for instance with geriatric patients, patients with knee conditions, low back pain or pelvic girdle pain. They were all experienced clinicians with more than 10 years of practice. Four of six were further specialized. The clinical coordinators all had experience with research involvement or with professional development activities. Hence, the clinical coordinator group consisted of clinicians who were all interested in professional development and improvement of practice.

3.1.4. Coordinator meetings

Coordinator meetings were organized on a regular basis throughout the project period in order to ensure that research and methodological development were relevant for clinical practice. These meetings were established specifically as an arena for exchange and translation of knowledge between those representing research and those representing clinical practice and with the intention of integrating the clinicians' perspectives and knowledge.

The number of participants varied from meeting to meeting, but each meeting had between eight and twenty attendees and lasted about four hours. The meetings followed the structure of typical workplace meeting with a structured agenda, moderated order of speaking, and summarizing minutes that were distributed after each meeting (Asmuss & Svennevig, 2009, p. 9).

Before every coordinator meeting the researchers distributed an agenda together with any preparatory material. The meetings were opened with an introduction by the principal investigator (PI); the introduction could take the form of a lecture or a presentation of background material. The topics on the agenda were subsequently introduced by the PI or one of the other researchers. These varied with the phases of the programme but included such topics as experiences with the technology and the content of the developed registration tool, discussion of specific tests or tools to be included in sub-projects, health

economic possibilities of the research, or identification of further research possibilities. After the introduction, the floor was opened for discussion. When the topics or issues directly involved the clinic or clinical practice, the researchers often asked direct questions of the clinical coordinators, who sometimes had been asked to prepare feedback from the other clinicians in their institute. The researchers moderated and summarized the discussions. After the meetings, minutes were distributed. The researchers also summarized the discussions and revised the plans accordingly, and wrote up and distributed the minutes after the meeting.

In the coordinator meetings, plans were discussed and decisions regarding the research programme were made. The topics in the coordination meetings varied with the different phases of the project as this proceeded. In the planning of the projects, the topics were often related to questions of method and strategies for conducting the project. When the projects were rolled out, the topics were often related to feedback, experiences with the data gathering, and preliminary evaluations. The later phases generated topics about presentation and distribution of results, as well as plans for continuation of the projects. While some topics directly involved the clinic and the physiotherapists' experience with patient treatment, other issues were less relevant to the clinic. The extent of clinician involvement in discussions varied depending on the topics that were discussed. Similarly, some meetings involved wide-ranging debates, while others involved more lectures or orientation. Often, the same issues were discussed repeatedly before plans were finalized.

3.1.5. Development of a preliminary study design

A preliminary study protocol was developed during the planning phase. The protocol presented the main goal of studying actual processes of knowledge translation using theory that enabled investigations of social and epistemological aspects of the knowledge translation between researchers and clinicians in FYSIOPRIM. A preliminary analytical approach was outlined that emphasized interactional aspects and micro-level analysis of the actions and activities that unfolded in the coordinator meetings. Accordingly, research methods that enabled detailed empirical analysis, such as observations supported by tape recordings, field notes, and document studies were planned.

Before the methodological design was finalized, the supervisors and I visited a coordinator meeting to introduce ourselves and the study to the participants in FYSIOPRIM. We presented the background for the study and its primary goals before the participants were invited to discuss the project.

In this discussion, the participants asked mostly about the research methods. Some of the researchers were sceptical about the use of observations, and suggested that interviews would be more appropriate, or at least should supplement the observations because interviews could provide insight into the reasoning behind the discussions that were observed in the meetings. The participants also emphasized that interviews could provide an arena where participants could elaborate on what was said in the meetings, thus helping to avoid misinterpretations. They also argued that merely observing the coordinator meetings did not provide adequate insight into KT, as they believed that knowledge translations would take place in several other places as well, such as the clinics where sub-projects were conducted, in informal settings, and in communication channels like email and telephone. Finally, they suggested a feedback loop in terms of presentations of results in the coordinator meetings. Thus, while some of the participants welcomed the study and found the topic interesting, others were somewhat sceptical and reluctant to be observed in their work.

The fact that the presentation was held during a phase of the project where the research questions had not yet been finalized, and it was difficult to explain in detail what would be observed, probably contributed to their scepticism. Although there was a theoretical foundation for the approach, and we had initial knowledge about the field of KT, there were not many studies that we could refer to in order to explain our objectives or expected results.

Together with my supervisors, I tried to explain this exploratory facet of the study and to reassure the participants that the project was sufficiently grounded in theory and in existing critical KT research. Some of the participants, however, who belong to a research tradition in which they first formulate clear research hypotheses and then pursue an answer to their question, were somewhat critical of the project's design and foundation. In addition, some researchers worried about how they and their work would be described, and whether I, who lacked health sciences competence, would be able to properly analyse their work. By the

end of the meeting we had received feedback on our study and the participants had got the chance to discuss with us. It was decided that we should revisit and present a final protocol before the pilot observations.

After our first visit in a coordinator meeting, the PI., my supervisors and I organized a meeting to discuss the issues that had been raised in the coordinator meeting. We concluded that while we could not at the time provide exact descriptions of what I was going to study or expected results, we could be more explicit about what we would not do, and thereby provide increased clarity. Hence, in the research proposal it was made explicit that the study would not be evaluative and that the purpose was not to study the participants but the representations of knowledge that were presented in the meeting. We also incorporated the participants' suggestions about interviews and feedback loops.

The meeting that was held in the wake of our visit proved to be useful for clarifying and aligning our understanding of what happened in the coordinator meeting. We decided to incorporate such meetings into the proposal as part of the research methods under the name of reflection meetings. Our final study design thus combined several methods for empirical inquiry including: (1) observation of coordinator meetings, (2) reflection meetings, (3) interviews, and (4) document studies.

3.1.6. Research ethics in the planning phase

Research ethics is a wide-ranging topic, as ethical considerations may occur in relation to different aspects of a research project. Formal guidelines and rules that are set by ethics committees may point out general considerations. However, the researcher should consider how the study that is conducted may impact on the people that in different ways are involved and potential ethical issues this may raise. The planning phase thus not only involves handling the formal requirements of the study, but also wider research-related ethical reflections upon the study to be conducted.

Formal approval of the project and obtaining of informed consent

Although the study involves healthcare issues, it does not involve healthcare research on humans and did not require approval from the Regional Committees for Medical and Health Research Ethics (REK) which administer Norwegian health care research that is regulated by the Health Research Act (2008). We did, however, register the study and applied for

approval at the Norwegian Centre for Research Data (NSD) which assists researchers with data gathering, data analysis, and issues of methodology, privacy and research ethics. The study was approved without further comment. It was, however, emphasized that data containing names or information that could reveal identity should only be stored at servers owned and managed by the University of Oslo. Data material was to be anonymized during transcription and stored without personal information.

According to the Guidelines for Research Ethics in the Social Sciences, Law, and the Humanities by the National Research Ethics Committee researchers are obliged to provide participants with:

> The information they require to gain a reasonable understanding of the field of research in question, of the consequences of participating in the research project, and of the purpose of the research. Subjects shall also be informed about who is funding the research. (The National Committes for Research Ethics in Norway, 2006, p. 12)

On the basis of this information, participants are able to give informed consent; that is, that they make an informed choice when they agree to participate. Participants should also be informed that they have the right to withdraw from the project at any time (The National Committes for Research Ethics in Norway, 2006).

In line with these requirements, we informed participants in FYSIOPRIM both orally and in a letter that was handed out in one of the coordinator meetings (see appendix III). The letter included contact information, so that the participants could contact me or the supervisors with questions. The end of the letter included a space where the participants could sign, to give their consent to be involved in the study. The administration of obtaining consent was assisted by the management in FYSIOPRIM, who helped us distribute the letter and gather consent from the participants who were not present in the meeting.

Other ethical issues in the planning phase

Formal practicalities are, however, insufficient to properly address ethical issues in research. The Guidelines for Research Ethics in the Social Sciences, Law and the Humanities includes norms that must be considered in relation to the particular study. 'Possible injuries' are difficult to define and measure, and it can be difficult to assess possible long-term effects. Researchers bear a responsibility for ensuring that their research subjects are not exposed to

suffering. The guidelines instruct the researcher to consider potential harm that the study may cause for participants. According to the guidelines, this harm can be 'any problems that might arise as a result of their participation in the project' (The National Committes for Research Ethics in Norway, 2006, p. 12), a formulation that places a large responsibility upon the researcher to identify and take actions to prevent or handle these possible problems.

While it is difficult to predict every possible problem that may arise as a result of a person's participation in a research project, the researcher is obliged to reflect upon the nature of the study and the likely suffering that it may cause. In this case, the study created more unease among the participants than was expected by me or any of the others that were involved in the planning and design of the study.

When informed about the study, some participants were critical, while others expressed concerns about what kind of results it would generate and how it would be presented in publications. Yet others responded positively to the study but expressed discomfort about being observed. Concerns were expressed in various ways; some concerns were made explicitly and openly in meetings and some were expressed in private conversations, while others were implicitly communicated to me and to the supervisors. As a researcher, it can be unpleasant to receive these concerns. However, it is important to consider participant's concerns.

As mentioned, the study required the participants to give their written consent to participate. The process of obtaining consent was however not straight forward. Because the study set out to study the group as a whole, it was necessary to have consent from all the participants. In other words, if one person did not agree to participate, the study could not be conducted – at least not with the planned design. Moreover, while informed consent includes the right to withdraw at any time, this was complicated by the fact that the material that was collected consisted of group dialogue. Withdrawal of consent during the study would entail deleting parts of the recorded material, and it would not be possible to continue the study with observations. The person to withdraw would therefore bear responsibility for the termination of this project. Moreover, because the participants knew that that the PI in FYSIOPRIM had been involved in the development of this study, and thus supported its initiation, they possibly felt a certain pressure to accept participation.

Obtaining voluntary informed consent was thus of concern in the planning phase. The process of obtaining formal approval of the study became an enlightening experience. It revealed tensions and concerns in the participant group and thus the need to work explicitly to provide more information and establish relations and trust. Because all the participants gave their consent, we did not consider that the tensions that had surfaced were sufficient to reconsider the design or stop the study. Much of the tension was tied to uncertainty, namely, concerns about the discomfort of being observed and uncertainty about how the work would be presented to the public. While this made the ethics of conducting observations and writing more tangible, these were issues that we were confident could be handled without subjecting the participants to any harm. We did, however, become more aware of the need to keep the participants informed, to be available to them and to build trust. This will be described more in the following sections.

3.2. The pilot study

3.2.1. Preliminary observations

Observation of coordinator meetings was chosen as one of the main sources of empirical material in this study. Observation entails being present "where the action is" (Goffman, 1969), that is, being an observer where the phenomenon of study unfolds. An observer may try to elicit significant matters or topics in a given situation, the patterns of human interaction that enable the participants to behave appropriately according to the local rules of conduct in the given situation, and also the members' practices: what they do and their reasons for doing so. Being an observer enables the researcher to watch, to ask questions and sometimes even to participate in the members' activities. In this study, we chose observation as a method of data collection because we expected that observing meetings would provide insight into the participants' communicative practices. We would be able to listen to how the participants presented arguments and positioned themselves in relation to each other and different topics of discussion. Hence, observation enabled us to grasp the communicative practices that unfolded in the coordination meetings, and in turn to analyse how the participants went about verbally translating and co-producing knowledge.

Five pilot study observations were organized. The idea was to get to know the participants and the empirical setting, as well as to test and further inform the study design and

theoretical approach. I was present in all five observations, while my supervisor EE attended three of these. Observation notes were written and formed the basis for discussions in the subsequent reflection meetings. The pilot observations were not audio recorded because there was some reluctance among the participants to be recorded.

3.2.2. Theoretical studies and development of analytical tools

Early in the pilot phase we observed that while the participants seemed to talk about knowledge, it was challenging to capture and describe the actual knowledge that was incorporated in the participants' discussions. This led us to pose the following question: how can we identify and operationalize knowledge that is presented in verbal communication?

In subsequent observations, we were especially attentive to how knowledge was embedded in verbal communication which led to the acknowledgement that we would need analytical concepts that could operationalize the abstract phenomenon of knowledge into observable entities.

The next phase of the study entailed extensive reading of literature in combination with repeated reading of observation notes from the first pilot observations. It also involved a number of discussions with my supervisors, as well as with the PI in FYSIOPRIM, about theoretical resources that could serve as tools to capture the knowledge that was presented in the discussions. The search for analytical terms thus included broad consideration of possible resources from linguistics, rhetoric, anthropology, cultural studies, social sciences, philosophy, and also science and technology studies. During this phase, I read, assembled and tested out various theoretical resources and concepts that could be used to interpret the material. Because the theoretical studies could be done in between the pilot observations, it was possible to move back and forth between theory and data.

This phase was thus mainly theoretical, although it was empirically driven, and entailed revisiting the empirical site. The concepts, knowledge objects, forms and positions were inspired by the literature. The combination of the terms developed gradually as we discovered how each of these terms captured various aspects of the knowledge that was presented in the participants discussions. The use of analytical concepts as leverage to study knowledge translation in verbal communication was addressed in our first paper, which was published under the heading of a study protocol. The paper, however, goes far beyond what

is often considered to be a study protocol. In it, we describe and discuss the results from the pilot study of a novel analytical framework for studies of KT in verbal communication. The framework is introduced using a hypothetical example based on the pilot observations and presents how the analytical tools may be used to identify and analyse the translation of knowledge as it unfolds in verbal communication.

3.2.3. Knowledge object

Annemarie Mol's book *'The body multiple: Ontology in Medical Practice'* (2002) inspired me in this phase of the study. In this book Mol investigates the condition 'atherosclerosis', a condition that is commonly regarded as a singular condition, but which Mol demonstrates, may exist in various versions in the different practices in which it is handled (i.e. diagnosed, treated or lived). She suggests that objects are multiple; they are more than one, but less than many. That is, they may exist in different versions and be distributed in time and place, but is treated as a singular object. Different practices, like medical specialties, create different objects through their instrumentation and handling, even though they all deal with 'atherosclerosis'. Mol illustrates that objects can multiply and then be drawn back together by work of coordination, translation and addition.

This is central to my use of the term knowledge object. If various practices create different objects, then objects may 'translate' in the transition between various practices. Translation then may be understood as shifts in versions of an object depending on the different practices handling it; because a knowledge object may be different in different practices, translation between practices such as research and practice will involve shifts between objects of knowledge.

Also, in her book, Mol describes how people who work or live with atherosclerosis tell about the disease in different versions as they tell about *events* from their practices related to the disease, something which inspired me to see how knowledge is presented in stories about practices and may be analysed by identifying the knowledge of which they speak.

In my material then I used the term 'knowledge object' to identify the topic or piece of content in an utterance, like a statistical group, muscle function, an experience of pain, or a questionnaire. I could thereby trace the object and see what happened to it. For instance, a clinician could talk about 'frozen shoulder' as a certain sensation when palpating a patient's

shoulder or as a quantified degree of a patient's reduced ability to lift the arm. Frozen shoulder could also be referred to as a patient's frustration of being unable to work because he or she could not anymore lift things down from shelves. Or it could be references to patients' stories of pain in specific movements. For a researcher doing research on 'frozen shoulder' the object might be a print – a sheet on which a machine has drawn a certain pattern of a patient's registered movement of the arm. Or it might be a familiar shadow on an x-ray picture. Or a figure of a human body in which patients' hurting body parts has been hatched. Translation of objects then entail shifts between these objects. But how are various objects made to relate? How are they made coherent? Seeing that objects could be present in various versions was not sufficient to answer these questions. I thus had to move further in order to get closer to what translation could involve in terms of creating coherence across practices of research and practice.

3.2.4. Knowledge form

Ludwik Fleck's term 'though collective', Kuhn's term 'paradigme' and Karin Knorr Cetina's term 'epistemic cultures' are concepts that address how sciences create and maintain specific norms for how to do science and how to know. These norms also encompass ways to account for, or present knowledge in order to persuade the audience of an argument or scientific claim. For instance, Latour and Woolgar (1986) demonstrate how scientific claims must be presented in particular ways in order to be accepted as facts. In general, rhetoric of science involves the study of rhetorical methods used to persuade the audience of an argument or a scientific claim (Sismondo, 2010). One way of studying this is by the study of topos. Topos is described by Aristotle as a general base or template used for building arguments (Gross, 1990). Hence, different 'thought collectives' or 'epistemic cultures' will use different 'templates' to make and evaluate claims in order to be credible and persuasive. These 'templates' are ways of organizing, displaying or communicating knowledge (i.e. in theories, prognoses, probabilities, examples, anecdotes, questions, etc.).

I used the term 'knowledge form' to identify and illustrate differences in how the participants organize their knowledge when presenting it. The point with this analytical term is thus to identify the various templates or arguments used by the participants. It is important to note that the templates were not understood as rigidly 'belonging' to particular

practices, rather the point was to investigate how the participants used different 'templates' when presenting knowledge.

3.2.5. Knowledge position

The concept 'knowledge position' has primarily to do with the practice or context to which some claim or statement is made to relate. The term was initially inspired by Knorr Cetina's (1999) term 'epistemic cultures', which emphasizes the diversity in scientific 'cultures', and the different ways that these go about making science. This entails different organizational structures, modes of collaboration, methodological approaches and knowledge norms and hierarchies.

The term 'knowledge position' was used to identify 'from where' a claim or statement is made; that is, in which context the participant situates a statement or claim. The term knowledge position thus denotes from which position some knowledge is created or used (clinician position, basic/clinical researcher position, policy maker position, patient position, etc.).

Positions are not the same as roles because unlike roles, positions are independent of the individual. It may be argued that the term is likely to highlight roles, and in this case serve to reinforce the pre-existing division between research and practice. The argument may well be turned around however, as the positions term makes it possible to identify exactly that positions are flexible; a clinician might speak from a political position or as a researcher, depending on the situation. I have thus approached the term with the assumption that positions are situational; which position a participant speaks from depends on what takes place in a given situation.

3.2.6. Knowledge task

The fourth analytical term, 'knowledge task' was added at a later point of the study, and was thus not presented in the study protocol. The term refers to the tasks or activities that the participants relate knowledge to when presenting knowledge. The term was inspired by Tiago Moreira's (2005) concept 'repertoires of evaluation', which describes how members of clinical guideline production groups assess knowledge by relating it to possible use. This inspired me to see that when the participants presented knowledge it was often related to a specific task for which they imagined or assumed the knowledge would be useful.

The term was developed while writing the second paper, which focused on the term 'relevance testing'. Adding the term 'knowledge task' had two important implications: (1) it became possible to identify the specific use for which the participants envisioned some knowledge. (2) It also demonstrated that when assessing the value of knowledge, the envisioning of its use played an important role.

Moreover, there is a third analytical potential with this term, which is that the term zooms in on the activities involved in practices. The identification of 'knowledge task', which, when presented in verbal communication, refer to things that can (or should) be done, makes analytically available the particular tasks in which knowledge is embedded or related to.

With these analytical concepts then, knowledge became operationalised into observable entities which captured different features of knowledge, and thus made it possible to identify and analyse.

3.3. Data collection

3.3.1. Observation of coordinator meetings

Twelve coordinator meetings, including the pilot observations, were observed in the period from 2012 to 2014. Each lasted about four hours. I also attended two 2-day seminars and one whole day seminar which were attended by the clinical coordinators and researchers. My supervisors alternately attended meetings and seminars as well, so that two researchers were present in at least every third meeting. As previous research on participatory studies discussed differences in interaction in different phases of a research project (Ginsburg et al., 2007), we considered it important to extend the field work over a longer period of time in order to capture possible variation in the participants' collaboration in different phases of the project.

We chose to organize the observations as we did – with me as a primary observer present in all observations and my supervisors as alternating co-observers – for several reasons. One of these was the assumption that three sets of eyes and ears capture more than one. With this design, all researchers were able to get a feel of the climate among the participants, and of what Goffman (1956) refers to as 'rules of conduct' in the particular setting; these are elements that are hard to capture from listening to tape recordings and reading transcripts.

Also, having been present in several meetings, the supervisors were able to give more qualified feedback on the analytical work. Hence, having three sets of experiences served as a sort of validation which in qualitative research is often referred to as inter-rater or inter-observer reliability; my supervisors had their own experience of the meetings on which they could ground any support, supplement or objection to my interpretations, which in turn is believed to nuance analyses (Barbour, 2001).

3.3.2. The role of an observing researcher

Observation is often designated as either participant observation or non-participant observation (Adler & Adler, 1994) although the line between these two categories is not clear-cut. A fourfold typology may be used to elaborate on this division: complete observer, observer as participant, participant as observer and complete participant. These four categories represent different degrees of participation in the activities observed on a continuum from pure observation to full participation (Adler & Adler, 1994). In many studies, these positions are combined, depending on different purposes and contexts (Allen, 2010). It may therefore be more important for researchers to reflexively consider their own research position and how different positions influence their studies, than to rigidly position themselves along this continuum. Field work involves social encounters (Allen, 2010) and researchers need to consider how to present themselves and how to act in different situations so as to best serve the purpose of the study, as well as maintain social and ethical commitments (Allen, 2010).

The complexity of my social and professional relationships with the participants in this study made these issues especially pertinent. To some of the participants I was merely the observer, a person with the status of an outsider. To others, I was also a colleague. I worked, however, to offset the imbalance in relationships by trying to get acquainted with the participants with whom I did not have a prior relationship. I did this in order to establish social relationships with the whole group, as I believed my presence would more easily become part of the usual business to the participants if they felt that they knew me. In other words, I hoped to reduce my effect on the naturally occurring activities, which is often called the observer effect (Adler & Adler, 1994), by developing familiarity with the participants. Also, I felt that it would be uncomfortable and unnatural if I refrained from engaging in conversation during breaks. If I did not take part, it could be seen as if I was distancing

myself, something that in the worst case could alienate me as a researcher, as well as my research project. I also benefited from taking part in informal settings. The 'observer as participant' is a mode of being in the social world (Adler & Adler, 1994) and I found that these settings helped me better understand the social setting, physiotherapy as a profession, the content of discussions, the frame in which the programme was fashioned, etc.

When the meetings were in session, I took on the role of a complete observer, which in this case means I was present without participating. I tried to be present in a way that minimized disturbance; I moved discreetly, and tried to handle the recording device discreetly. I deliberately placed myself in a position where I could see most of the room and the participants, but where I was also able to take notes without attracting attention. In this setting, this was a natural role, both because I lacked the competence to participate in most discussions and also because I wanted to observe the meetings in as natural a fashion as possible. My alternating status as observer was thus about striking a balance between finding a comfortable way of being present while also ensuring that my presence was aligned with the purpose of the study.

Allen (2010) emphasizes the ethnographer's need to consider issues of self-presentation, and his or her own position as a researcher and person when doing fieldwork. While field work is made up by multiple social encounters, these encounters have a particular purpose, namely to produce empirical data. Therefore, the researcher must make sure that the observations are made in line with the study's purpose, while simultaneously making sure to act in a manner that considers the people who are being studied. The observer must thus make sure to keep research ethical issues in mind during fieldwork.

3.3.3. Ethical issues during observations

The observations produced several ethical issues related to the research. For instance, some of the participants were sceptical to the plan of recording the meetings on audio tape. In one situation, the tape recorder was not paused during a break. Two of the researchers in FYSIOPRIM observed that the recorder, which was placed at the middle of the table in front of them, was still recording. Having had a conversation they felt should not have been recorded, they made me aware of the mistake. I immediately excused the mistake and explained that I had forgotten to stop the recording because I needed to make an urgent

phone call during the break. I also explained that I would not listen to the sequence and that I would delete it directly after the meeting. Nevertheless, the situation added to some of the participants' already existing concerns about the recorder. As a researcher, my perspective was that the audio recordings contributed to a more reliable analysis of data by enabling repeated listening and transcriptions. To me it was clear that break conversations would not help inform my research questions. However, some of the participants were more concerned about being tape recorded and the storage of the data, which of course is understandable.

In this situation, I thus felt it was important to acknowledge their concerns and apologize for the mistake. I made sure to explain to them how I would deal with the mistakenly recorded sequence, and I also reassured them that I did not intend to record their conversations during the breaks. As one of the participants said to me in a later conversation, it was not so much about that particular conversation, or that their conversations were so secret; rather, it was a matter of minimizing the participants' discomfort about being recorded. As an outsider ethnographer, it was important for me to consider that the participants' trust in me might be very fragile, and I thus needed to approach every action with this mind.

I also encountered issues of hierarchy during this study. Being a PhD student in my first year, I was an inexperienced researcher, while most of the researchers who participated in FYSIOPRIM had long experience. In this particular setting, I was the researcher who wished to study their project, and they were participants. There were many factors that influenced these relationships, which, in some instances, were challenging. For instance, as described above, it was challenging to present the study to the participants, some of whom were openly sceptical about being studied and about some methodological aspects of the study. The difficulties were partly a matter of being in a very early phase of the project and our collaboration, and partly about belonging to different research traditions. As an outsider, and a fairly inexperienced researcher, my insight into their research traditions was restricted, something that prevented me from considering these differences when trying to answer their questions.

Moreover, I was an inexperienced researcher while they had long experience as researchers, and I found it difficult to defend my own research position. In addition, I was an outsider

who asked for their permission to study their research project, and thus needed to maintain the ethnographer's modest, open and curious approach towards the group that she or he wants to study (Allen, 2010). I found the balance between defending my theoretical and methodological decisions in my study and tending to my position and approach as an outside ethnographer difficult, something which I repeatedly addressed in discussions with my supervisors. We decided that they would also accompany me when my study was discussed with the participants. Being experienced researchers with high theoretical and methodological competence they could explain aspects of theory and method with more detail and authority. This also enabled me to concentrate less on explaining and defending the study, and allowed me to focus more on developing an observer role that was tolerable to the participants, and that was aligned with the study's research objectives. Experiencing these challenges did, however, highlight the importance of having considered these issues and having a strategy for maintaining analytical distance and for directing attention during field work.

3.3.4. Directing attention in observations and writing of field notes

Ethnographic fieldwork may be more or less theoretical, leading the ethnographer to different strategies of observation (Allen, 2010). A researcher may start off with a defined mission, formulated research questions and specified strategies for directing attention; or, one can approach the field with an open mind and let the observations lead to gradually narrowed attention, until issues of focus can be decided on, based on one's experience in the field (Allen, 2010).

Having had the pilot observations, I was already familiar with the coordinator meeting setting: the formal organization, the participants who attended, and the material surroundings. I had also worked extensively with the development of analytical concepts and the "testing" of various frameworks to capture the knowledge that was presented in the participants' dialogue. However, even if the concepts had already been developed at the time of the continued observations, I considered it important to maintain more open observations too, in order to avoid premature analytical closure and thus possibly miss significant aspects of the knowledge translation processes.

It was, however, crucial to develop a strategy for directing attention, as the coordinator meetings involved many people who communicated simultaneously. A lot went on at the same time during the meetings, and observing it all at once became perplexing. Writing field notes involves turning scenes, actions, dialogues and experiences into writing (Allen, 2010), and I wanted to write down what I saw and heard. It was, however, impossible to write down every piece of interaction or activity that unfolded from moment to moment. Naturally occurring interaction happens fast and often a scene is over before the observer has transcribed it, especially if one wants to write down interesting pieces of dialogue. It was thus necessary to select a focus.

Being an inexperienced observer, I relied on the advice of Emerson, Fritz and Shaw in their book *Writing Ethnographic Fieldnotes* (2011) to develop a strategy that entailed zooming in and out on various pre-defined topics or issues. Before each observation, I read through previous notes and decided what to investigate further in the upcoming observation. In some meetings, I decided to focus on gestures and body language, in others I described the use of objects and technical equipment, while in yet others I looked specifically at the production and use of written representations such as lists, tables, figures, graphs and charts, to mention a few. Hence, the strategy entailed sometimes narrowing down the focus, while at other times observing more broadly. This helped to structure my notes, but was not applied in a strict manner. Each meeting was different and I allowed for a change of focus if I considered something other than my predefined focus to be more interesting in a particular meeting, or if my predefined focus did not seem relevant in the meeting.

As Allen (2010) points out, field notes may be of a more or less analytical character, as the fieldwork will spark the analytical work. The observer may choose to incorporate such preliminary analysis into the field notes, or strive to write down strictly observable actions and interactions.

I applied different strategies for writing notes. Some of my field notes consist of unsorted fragments that describe various aspects of the meetings such as how they were organized or how they proceeded, distribution of speech, tone of voice, body language, questions asked, words chosen to articulate thoughts, and the ways that discussions were initiated and ended. Other sequences contain analytical terms inspired by different theoretical resources like the

micro-sociological terminology of Goffman (keying, footing, front and back stage), the terminology of Latour and Woolgar's *Laboratory Life* (inscription, modalities, degrees of facticity), and terms from classical rhetoric (ethos, pathos, logos, kairos) to mention some examples. These notes reflect ideas for further possible analysis of various aspects of the meetings.

Having conducted the pilot study and developed the analytical terms, I entered the observation phase with the assumption that knowledge was being translated in the coordinator meetings. Accordingly, I often focused my observation on the verbal presentation of knowledge. However, my observation notes reflect that I did not restrict the subsequent observations by using the aforementioned analytical concepts or any other definition of knowledge translation, but instead continued to explore the empirical setting.

It often happened that I began sentences that I could not finish because something new happened that I wanted to capture. I thus developed a system of noting down cues to myself so that I would remember the scene and write it down afterwards. After each observation, I sat down to fill into my notes where I had stopped writing before I was finished. I also wrote reflection notes or resumes for my supervisors and the PI in FYSIOPRIM, which were distributed before the reflection meetings that we held after each observation. These contained topics of interest to the current observation, questions and preliminary analysis that I wanted to discuss. Writing reflection notes was thus an incitement to start the processing of data and helped me to sort out issues of interest directly after observations.

3.3.5. Reflection meetings

As soon as possible and no later than one week after the observations, I met with the supervisors and the PI in FYSIOPRIM to discuss the observations. In cases where one of the supervisors had acted as co-observer, both observers then presented their main ideas and reflections from the observations. The reflection meetings had several purposes.

First, they had an analytical purpose; we used the meetings to discuss possible interpretations of observed situations as part of the process of eliciting important issues and preliminary analytical ideas. Second, the reflection meetings served to maintain a dialogue between the observer and the observed –represented in this setting by the PI. We discussed the best ways of performing the observation, for instance how I could behave to disturb the

meeting as little as possible and how to build trusting relationships with the participants. I also addressed questions regarding the participants work or some subjects that had been discussed in the meetings about which I needed background information to understand properly. In this sense, the reflection meetings had a validating role too, by preventing possible misinterpretations. We also sometimes discussed preliminary findings that could be useful input to the PI in the further planning and improvement of knowledge translation in the group. Hence, although this study did not seek to improve KT, there was an opening for using preliminary findings that could influence the further execution of FYSIOPRIM, should the PI. wish to utilize such findings. Any influence that the preliminary findings might have on the knowledge translation was not seen as problematic, but as a possible benefit that would in turn be subject to further observation (Lillehagen, Vøllestad, Heggen, & Engebretsen, 2013).

3.3.6. Interviews

The reflection meetings thus served as a channel for communication with the participants through the PI. Another source for obtaining the participant's own perspectives was complementary interviews with participants. The interviews were designed to supplement the observations, which were regarded the main source of data.

Interviews are considered a method of capturing a participant's own experience of or with the phenomenon of study (Kvale & Brinkmann, 2009). In my interviews, I thus wanted to capture the participant's own reflections and how he or she made sense of the knowledge translations that went on in the meetings. The aim of the interviews was, however, threefold: (1) Interviews could serve to contrast or confirm my own preliminary analysis of data through discussion of selected sequences/situations that were observed in the meetings; (2) the interviews could be validating, in terms of adding information, and (3) the interviews could provide additional data and thus further develop preliminary analyses.

I prepared, organized and held the interviews. My supervisors attended one interview each and in these interviews, they took part in the dialogue and posed follow-up questions. All interviews were tape recorded and transcribed. The transcription style was chosen in accordance with the analytical purpose of the interviews. This included direct transcription of conversations, but excluded utterances like *uh*, *ah*, and intonation. Pauses were marked,

but not timed. As the interviews constituted supplementary data, they were read repeatedly and used as supplementary support for analyses of the observation data.

A semi-structured interview guide (Kvale & Brinkmann, 2009) was used to guide interviews. It included broad and general questions of the participant's background and previous experience as well as more specific questions about selected sequences from discussions in the meetings. For instance, excerpts of discussions from coordinator meetings were presented to the participants who were asked to elaborate on the discussions, and possibly to explain their reasoning behind presented arguments. The presented sequences were chosen specifically for each interview and contained some parts of dialogue that I interpreted as significant to the presentation, exchange or translation of knowledge.

In one of the interviews this was a sequence of a discussion about creating pre-defined categories in a questionnaire that the participants were developing. I asked questions like: 'What was going on in this discussion? Why did you feel that this particular argument needed to be presented in this setting?' I also presented my interpretation of the sequence and asked questions about it, such as: 'Do you recognize the knowledge objects, forms, and positions the way they are interpreted here? Can you think of other ways that the knowledge objects, forms and positions could have been analysed here?'

Having done three interviews with two practitioners and one researcher, I re-listened to the interviews. My impression at the time was that the interviews did not provide much new information. Rather, the information that was obtained was very much aligned with my own interpretation in terms of understanding the participants' experiences, the setting of the meetings and the activities and interactions that went on there. The interviews also confirmed our observation that while the participants were committed to the task of co-creating practice-relevant research, they were unfamiliar with engaging in meta-reflections upon knowledge translation. Hence, the interviews were valuable in terms of confirming our line of inquiry into the implicit knowledge translation work that went on in the meetings, and it encouraged the further investigation of concepts of knowledge translation in the data that had already been obtained. Interviews with five clinicians and five researchers were planned, but we stopped interviewing after having interviewed only one researcher and two clinicians. This decision was made together with my supervisors and was based on the

experience of data saturation with regards to the information that we could obtain by interviews, combined with considerations of the time spent on preparation and organization of the interviews and the huge amount of data that was produced in them.

3.3.7. Document studies

All the written documents that were distributed prior to, within or after the meetings were collected. Often, journal articles (or extracts from them), documents such as drafts of research plans, suggestions for questionnaires to use, charts, graphs, figures, data collection plans, summaries, minutes and feedback were distributed electronically or on paper before, in and after the coordinator meetings. The FYSIOPRIM documents contained written and figurative representations of the work that was being done in the project and were mostly produced by the research coordinators in FYSIOPRIM or by the researchers, and were often used as a basis for discussions in the coordinator meetings. The documents were sometimes modified after discussions and redistributed in updated versions. In addition, participants sometimes provided me with texts or excerpts of email correspondence that they believed could be of interest to my study.

The collected documents were therefore a unique source to capture temporal aspects of the work as it proceeded. Because the documents existed in several versions, comparison of these versions could elicit the changes that had been made over time. The written material thus documented the processes that took place as the work proceeded.

Documents were therefore regarded as active and as participating in the interaction that went on; they constituted actors of knowledge that were present over time. For instance, the participants could discuss different versions of questionnaires. In these discussions, older versions of the questionnaire were present as proof of earlier phases of their work, representing logics that had since been left behind or other ways of reasoning. Sometimes the participants disagreed on which version to use or which was the best version while comparing the different versions. In this way, the documents acted actively in discussions. The documents were not analysed individually, despite being suited to analysis of translation in representations of knowledge. They were, however used as a source of inspiration for analyses and as a supplement to the analysis of the observation data. For instance, the dialogue that was analysed in the first empirical paper was concerned with two tables

consisting of different sets of answer categories that were used in the registration tool that the participants were developing in Project D. These written sources were studied and used to elicit alternative interpretations of the dialogue and thus to discuss my own interpretations.

3.3.8. The data material

Data collection thus involved observations of coordinator meetings, interviews and collection of documents. All meetings and interviews except the five pilot observations were recorded for their entire duration and transcribed.

Transcription was conducted with software developed for transcription. It was, however, a challenge, as most available software is designed for transcription of dialogue between two parties and this material consisted of multi-party dialogue. Lack of available software adapted for such material made the transcription work complicated and time-consuming. Due to these difficulties, not all transcriptions were done by the same standards. All the material was transcribed, but only the parts that were considered relevant to the analytical work were transcribed according to Jefferson's system of verbatim transcription which shows the precise start and ending of overlapping talk, intonation aspects, and timed pauses.

Verbatim transcription facilitates fine-grained analysis of language and situates the participants' talk as action (Hepburn & Bolden, 2013). Use of this style of transcription allows for analysis not only of the spoken words, but also of other aspects of the communication, such as pauses and intonation. After having transcribed the recording from a meeting, parts that were identified as significant were then further transcribed in this style. Parts that were transcribed non-verbatim were typically lectures, other parts of the meetings that did not entail any dialogue, and parts where issues other than the research were discussed. All of the material was read repeatedly and included in the NVivo coding.

In addition to transcribing the material, I wrote about 40 pages of field notes, several reflection notes and resumes from reflection meetings. For my own analytical process, I also recorded several of the discussions with the supervisors that took place in reflection meetings and during supervision. Although this was not included in the material, it contained seeds of analysis that were valuable for the analytical process.

3.3.9. Data storage

The recording device was kept in a locked closet at the University of Oslo. Audiotaped material was transported from the recording device to a computer belonging to the University of Oslo as soon as possible after observations and deleted from the device. The transcribed material was anonymized in transcriptions. Because I observed the meetings I was able to recognize the voices and name them researcher and clinician 1,2,3, etc., in the transcriptions. Numbers were assigned chronologically as the voices first occurred in the recordings. Thus, the same person could have different numbers in different transcriptions, but would have the same number within one transcription. Hence, it was possible to trace participants' utterances within transcriptions of one meeting but not across the material as a whole.

3.4. Analytical work and writing

3.4.1. Working analytically with the data

Models of qualitative research often separate phases of data collection and analysis. In traditional ethnographic fieldwork, there is often a data collection phase where the researcher leaves his or her desk to go and stay in the field of study for a prolonged period of time. After having completed the fieldwork, the researcher returns to his or her desk, and the phase of dedicated analytical work starts (Adler & Adler, 1994). In most cases, however, analytical work starts as soon as the data collection begins (Adler & Adler, 1994). In the case of this study, it might even be said to have started with the reading of KT literature and the identification of restricted notions and categories of knowledge and translation, which constituted a point of departure and further directed the study approach.

The design of this study does not follow the traditional ethnographic model. Instead, data collection went on for two years, with observations about every third month. Accordingly, I had the opportunity to move between data collection and analysis during the entire data collection phase, which resulted in several phases of analytical work starting already in the pilot study observations.

Moreover, the pilot study contributed to the development of the analytical concepts of knowledge object, form and position. Hence, I had an analytical framework available. While I continuously explored this framework, I did not restrict the analytical work to mere use of

these concepts. Instead, I engaged in various phases of analysis with different objectives. In qualitative research, a distinction can be made between analytical approaches that aim to elicit coherence and patterns in the data material and approaches that emphasize variety, inconsistency and complexity in the data (Alvesson & Sköldberg, 2008, p. 21). The latter approach is characteristic of studies of discourses and other traditions that study human sense-making as fundamentally shaped by and in social interaction and language (Winther Jørgensen & Phillips, 1999). These two approaches should not, however, be understood as strict categories that are mutually exclusive of each other. Rather, different levels or phases of analysis may entail various approaches to the material.

3.4.2. Phases of analysis

First phase of analysis: a broad examination of patterns and important topics

The analytical work in this study entailed moving between several phases of analysis. Clear-cut divisions do not serve to describe the real process of analysis, but in order to present the analytical work, I have made a distinction between two main phases.

One phase of analytical work entailed searching both for patterns and for variety. I needed to order and systematize the data, and repeatedly re-read observation notes and transcriptions searching for patterns in interaction, and topics that could create main categories for systemizing. These readings were thus broad and exploratory and resulted in the identification of some patterns of interaction as well as some topics.

Despite the open approach in this phase, my reading of the data was influenced by experiences from the observations and ideas from the observation notes, as well as by theories of discourse and interaction from such fields as micro-ethnography, ethnomethodology, conversation analysis and science and technology studies concerned with micro-processes of knowledge production. Examples of questions that were posed in this phase of analysis were: What sort of topics and dilemmas do the participants take a common interest in? Who is responding to what sort of questions in various situations, in what way and with what effect? What sort of arguments are raised as the participants reflect, discuss and try to define a particular problem? What problem-solving approaches are suggested with what effect? When and how is an argument legitimized in clinical experience, scientific evidence or both? How is coherence between research evidence and clinical

practice argued? When are missing links between research and practice a problem of concern? What sort of examples and arguments provide opportunities for meaningful engagement from whom? When do two or more of the participants commonly trigger disagreement with an initial statement? What becomes important? These questions helped identify patterns of interaction and topics discussed in the meetings that I wanted to explore further. The variety of the data was used comparatively to enhance patterns (Melia, 2010), for instance by searching for deviant cases.

The data was imported into NVivo software for qualitative analysis. This entailed creating codes and marking sections of text that contained information relevant to the codes. I used the terms 'knowledge object', 'knowledge form' and 'knowledge position' as codes, but also a range of other codes that referred to, for instance, modes of interaction, important topics of discussion, and different situations that occurred during meetings.

Extensive parts of the dialogue could be coded with more than one code. Reports containing all sequences coded with the various codes were created in order to systematically review all the dialogue under each code, as well as to compare material coded with different codes. While this phase of analysis helped systematize the data, it did not entail much interpretation as such. Moreover, although it gave an overview of the data, it also made the data into fragments of texts that were cut out of context. Coding the ongoing dialogue was also a challenge, as it was difficult to mark where a section began and ended. Especially in multiparty conversation, the dialogue is not straightforward, but instead goes back and forth between participants and topics. The reports were, however, useful for identifying further topics of analysis, which were then subjected to more detailed analysis.

Second phase of analysis: analysis using the theoretical concepts

The second phase of analysis entailed further processing of the issues previously identified using the analytical terms 'knowledge object', 'form', 'position' and 'task'. The analytical work was done in collaboration with my supervisors. We settled on the issues that we wanted to analytically pursue after repeated discussions about the observations that had been made and after performing preliminary analyses and sorting the material using NVivo. In particular, the discussions in FYSIOPRIM about Project D, which entailed making decisions

regarding what kind of knowledge was to be produced, as well as negotiating priorities, had interested me for a while. I thus revisited codes that included such sequences of dialogue.

Although my analytical focus was on the micro-level of transcribed dialogue, it was necessary to view and understand the sequences within the contextual situation in which they occurred. Hence, while I reviewed the reports and sometimes consulted them to look for particular sequences of dialogue, I also returned to the transcribed material for further analysis. This way I was able to interpret the analytical terms in relation to each other, as well as to trace how these terms developed in the course of a discussion. For instance, I needed to know the overall question being discussed in order to understand the translation of an object in a discussion. This phase of analysis entailed extensive and fine-grained analysis, which focused on eliciting patterns in the dialogue related to the shifts of knowledge objects, forms and positions in the participants' discussions. Moreover, interpreting the material using the analytical terms also involved analysing the situations in which sequences occurred, as well as changes in those situations that were connected to the dialogue. For instance, certain modes of interaction would cause participants to act in accordance with particular positions, such as during introductory lectures where the clinicians clearly acted as audience while the researchers acted as presenters. Defining these situations or modes of interaction helped me to make sense of the changes of objects, forms and positions that occurred in a given situation by creating a context for the discussions that took place.

The analytical work also entailed critical revision of my own analyses in terms of offering alternative explanations and comparing results to deviant cases. This was part of the strategy to maintain analytical restlessness to avoid prematurely settling on a particular analysis. However, the complexity of the material and the broad range of intermingling issues that were identified would sometimes drive me towards analytical indecisiveness, which made the analysis a lengthy process. Hence, the analytical work entailed finding a balance between construction and critique of my own analysis. Writing out the analysis as drafts for publication was helpful for this endeavour, but also entailed some challenges.

3.4.3. Writing up results

Challenges during the writing phase were primarily tied to two separate but related issues. The first was the question of who our primary audience was and where to publish in order to reach them. Second, many of the journals within health care that we considered as possible channels of publication have strict format criteria that made presentations of this study a challenge.

This study is a crossover study that utilizes theory and methods from social science and anthropology to investigate a phenomenon that is mainly situated within the field of healthcare (although similar questions have been treated in other subject areas too). The terminology of KT is mainly tied to the field of healthcare and is largely unfamiliar in other subjects. So although it is an advantage that the study may be relevant in several settings, the fact that does not obviously belong to a particular field may pose a challenge. Having discussed this, we decided that while the study might be interesting to other scholars who work with similar theoretical influences (primarily STS research); we considered our primary audience to be situated within the field of KT and healthcare.

Hence, the primary channel of publication would be scientific journals and crossover journals with a clear focus on healthcare and knowledge translation or implementation science. Many of these journals adhere to a writing style, taxonomy, and formats used in healthcare or medical research. Writing within the norms of medical journals was, however, challenging for several reasons. First, the study is qualitative, and many medical and health care journals prefer quantitative studies (Greenhalgh, Annandale, et al., 2016). Second, we expected that the theory that is used would by and large be unfamiliar to the readers of these journals, who, we believed, would require more exhaustive presentations of theory. And last, but not least, the nature of the empirical material created some difficulties in terms of writing within the standard format of a medical paper.

The transcribed discussions do not have the form of a dialogue where each new utterance refers to the previous one. Because there are several speakers and the turn taking is moderated with a list of speakers, several topics of discussion may be discussed in parallel. Identifying when a topic is first introduced and where the discussion of it ends is thus difficult. Also, one discussion may stretch out over several pages, or a topic may be referred

to repeatedly but with several pages of other talk in between. Providing precise accounts of discussions is especially difficult within a word limit. Our results thus had to be presentable within the particular paper format. This particularly influenced the choice of examples, as the chosen examples had to be illustrative and to the point, but also short and clear enough to present within the format of the paper.

Ethnographic research often generates a vast amount of diverse material. As described, the analytical work entailed engaging with this material on several phases in a back and forth process before decisions were made regarding which issues to present. However, it is challenging to present the research methods, process of analysis and results in an adequate manner (LeCompte & Goetz, 1982, p. 36).

The dispersed nature of the transcriptions together with the detailed presentation of analysis restricted the presentation of empirical material, and allowed us to present only a fraction of the vast data and the extensive analyses to the reader. Thus, it is important to note that the cases we present in the papers were chosen as *exemplary cases* (Eriksen, Krefting, & Rønning, 2012) based on analyses of the whole data material. That is, the chosen cases are used as examples with particular illustrative power to demonstrate phenomena in the material that go beyond the exemplary cases. The choice of phenomena are in turn made on the basis of extensive analysis of a vast material, and are phenomena that we believe may inform our understanding about knowledge translation processes in participatory settings.

3.4.4. Research ethics in analysis and writing

Ethical issues of various characters arise in relation to different aspects of the research and must be considered in every phase of a study. In qualitative research, the writing phase raises issues of how to present qualitative material in a way that safeguards the privacy of the informants and simultaneously gives the reader sufficient insight into, and a feeling of, the material. Also, and maybe particularly in ethnographic accounts, the researcher should consider his or her own influence on the material, something that should be reflected in the writing of results. When the presentation of material as 'objective' and the writer as holding the position of an outsider obscures the fact that the researcher was also part of and interfered in the situation, it is an ethical matter. Such a presentation also does not consider

that the researcher is the one with the power of definition, as she or he is the one that ultimately writes the account of the research.

When writing the results in this study I kept in mind the participants' concerns about how they would be presented. The data is anonymized, but the name FYSIOPRIM is published. Also, as pointed out by the participants, their disciplinary field is relatively small in Norway, so they can probably be identified. As one clinician pointed out, the insiders in this field could probably even identify who said what. It was said partly as a joke, but it is still relevant information to a researcher who wants to present their discussions in conferences and scientific journals. Also, I knew that some of the participants had attended other research projects and had felt unfamiliar with the results.

Of course, any account of research should make sure that participants are presented justly. Knowing that the participants in FYSIOPRIM had concerns, I was especially concerned with the ethical control of my own accounts.

One difficulty related to the presentation of results in qualitative research is the presentation of transcriptions, which renders dialogue word by word. Verbal language presented in writing can seem inconsistent. It can make a person feel estranged from his or her own words to see them in writing. In presentations, we have removed utterances like 'uhm', 'eh' and the like. However, due to the micro-level of analysis applied to the dialogue, it was necessary to present the excerpts word for word and translated directly from Norwegian to English, something which prevented translation into more correct or adequate English.

3.5. Methodological objectives and limitations

So far in this thesis I have discussed the particular theoretical framework and the methodological approach of this study. I have to a lesser extent engaged with questions about what kind of accounts can be made of such studies: how can I arrive at any answers, and what is the nature of the answers I can possibly get through this particular approach? I therefore now discuss the limitations of the methodology in this study and the credibility of the accounts that are produced.

The data that is created in ethnographic studies contain snapshots of the practices studied. The ethnographer observes, listens, records and writes down. It is an attempt to preserve events, but it cannot not provide an exhaustive description of what really happened (Emerson et al., 2011). While the tape recorder captured the dialogue and gave me access to the actual discussions that took place in the coordinator meetings, the dialogue it recorded was not sufficient to describe the full picture of what went on.

Notes that were made fill out, but do not complete the tape recorder's account of the meetings. One reason for this is that as ethnographers, we were unable to grasp all the details of every situation. The notes are thus accounts of some aspects, while other aspects were not described. Another thing is that different observers are likely to focus on different aspects. Two ethnographers who observe the same setting will give different accounts (Emerson et al., 2011; LeCompte & Goetz, 1982). For instance, the lens through which the ethnographer observes can be more or less theoretically coloured. And while the ethnographer can strive to observe objectively, which would ideally make him or her equally attentive to any aspect of the observed activity, to provide descriptions with any detail, ethnographers needs to focus their attention (Adler & Adler, 1994).

The researcher's direction of attention in observations in turn influences on the data material that is generated. In this study, dominant KT concepts and theories were bracketed, while the displays of knowledge in practice (Knorr-Cetina, 1999; Mol, 2002) were brought forward and into the centre of observations. Hence, the focus of attention was influenced by theory, and inspired by previous studies of scientific practices. It follows that while I strove, in some observations, to observe as neutrally as possible, large parts of the observation notes that were generated were 'theoretically biased', in the sense that I as an observer asked some theoretically guided questions in the empirical settings as a part of directing attention. Hence, the reality described in the material is filtered reality (Latour & Woolgar, 1986).

In turn, the already filtered preservations of former events are subjected to analysis in order to provide descriptions which can inform the study's research questions. Analysis then is what you do to go from empirical data to processed descriptions that provide answers to the study's research questions. It involves adding something to the material, or viewing the

material through a lens that draws attention to certain aspects, while pushing other aspects into the background.

Hence, in ethnographic studies there will be a multitude of possible results depending on who generates the material, and which analytical questions are asked. The results from this study are therefore *possible* results, and not claims of what really happened, or exhaustive descriptions – there could always be other accounts. So what about credibility of the results that I do present?

Qualitative research in general, including ethnographic research methods, have been extensively criticized for problems related to reliability and validity (LeCompte & Goetz, 1982). Because quantitative criteria for validity and reliability are generally not transferrable to qualitative research, qualitative researchers often speak of issues of research rigour in different terms (Kitto, Chesters, & Grbich, 2008).

An often mentioned term in respect to qualitative research rigour is 'transparency', which refers to explicit, clear, and open descriptions of the methods and procedures used in the research process (Hiles, 2012, p. 2). Hence, transparency is also a foundation for critical examination of the research.

The results that are offered in this study are what Latour and Woolgar (1986) call 'temporary and situated accounts', which refer to the 'in situ' nature of the results. Hence, there are obvious limitations to the generalizability beyond the particular setting in which the study is conducted. However, the aim of this study is not to discover something of universal, rather it is to create insights into actual practices of knowledge translation in participatory research which, in turn, may contribute to further theoretical development. In qualitative research this is often referred to as 'analytical generalizability', which denotes the generalization from empirical observations to theory, rather than a population (Yin, 1994).

A possible weakness in this study may be that the reader is only presented to a fraction of the data material. Thus, it is all the more important that the process of method and analysis is described in sufficient detail, allowing the reader to understand the full process of creating the results. This also includes to, as a researcher, engage in self-reflexive deliberations about the research process and the results that are being presented. Moreover, situating the study

theoretically is also part of making transparent accounts, as this enables the reader to trace not only the systematic work of method, but also the theoretical resource that the study draws on.

If this study gives answers, they are preliminary and situated. However, they are true in the sense that they are generated through a systematic investigation of an empirical site, as well as a process of theory informed analysis. Hopefully, these results may contribute with insight into the particular empirical site of study, but also with insights that can contribute to further expand theory, and inspire to further questions about knowledge translation in participatory research.

4. Presentation of the papers

4.0. Introduction

The study has resulted in the production of three papers. Each presents results from the work that has been done in this study, and are described and discussed in this summary. The papers contribute to the field of KT in different ways: the first paper presents a theoretical framework for the further study of knowledge translation in verbal communication, while the second and third papers present empirical results that describe actual processes of translating knowledge in participatory settings, as well as difficulties that appear in this work.

While the papers discuss different topics, they are also closely interrelated. They are joined together by the shared analytical framework used to analyse knowledge-making at a micro-level. The theoretical approach thus enables the production of the empirical work, which in turn constitutes a foundation for questioning existing notions and conceptions of participatory research as a knowledge translation strategy.

4.1. Summary of the papers

4.1.1. Paper 1: Protocol for a qualitative study of knowledge translation in participatory research

The first paper was published in *BMJ Open* in 2013 (Lillehagen et al., 2013). The paper has two main objectives: (1) to present the study design as a qualitative approach to studies of knowledge translation, and (2) to present a novel theoretical framework for analysis of knowledge translation in face to face interaction.

The paper establishes a background for the study's objectives of qualitatively examining actual processes of knowledge translation between different participants in a participatory research project by introducing the field of KT research, as well as some of the critical voices concerned with the weak theoretical foundation of current dominating conceptions of KT.

The paper further presents and discusses the methodological design of the study: the empirical setting, and the methods that will be used to obtain data. Further, and most importantly, the paper presents a hypothetical example developed from pilot observations which are analysed using the analytical framework. The analysis illustrates how the conceptual tools may be used to identify and trace changes and alterations over the course

of the observed discussions. We ultimately propose that the study may result in a typology of knowledge translation in participatory settings.

4.1.2. Paper 2: Unpacking knowledge translation in participatory research: A micro-level study

The second paper was published in *Journal of Health Services Research and Policy* in March 2016 (Lillehagen, Heggen, & Engebretsen, 2016). It was the first empirical paper in the study.

As indicated by the title, the objective of this paper is to unpack knowledge translation as it unfolds in the particular empirical setting. In this paper, we focus on a recurring rhetorical pattern in translational processes that we call 'relevance testing': a strategy by which the participants attempt to create coherence and identify relevance across different contexts.

Using an example and the analytical concepts, knowledge objects, forms, positions and tasks, we analyse how the participants assess the relevance of knowledge by envisioning its usage in particular settings. We also illustrate how the strategy sometimes resulted in the identification of lack of mutual relevance of some possible knowledge.

We discuss the fact that while relevance testing may lead to the identification of mutual relevance and thus to the production of more practice relevant results, it also seems to reinforce a 'two-communities' logic and enhance the separation between the respective worlds and rationales of clinicians and researchers. We also note that this 'translational work' remains implicit in the participants' discussions and suggest that the participants may lack necessary conceptual tools.

This paper may contribute to increased awareness about translational processes and provide a language for addressing barriers to translation in the setting of participatory research, as well as in other settings designated for interprofessional or interdisciplinary collaboration.

4.1.3. Paper 3: Critically exploring epistemic premises to knowledge co-creation in a participatory research project: A micro-level analysis of an epistemic dilemma

The third paper was submitted to *Evidence and Policy* in May 2016 and is under revision.

The paper directs attention to the concept of co-creation which is often used to describe collaborative processes of knowledge user participation in research (Greenhalgh, Jackson, et

al., 2016). The paper departs from the assertion that while co-creation is expected to generate practice-relevant research, little is known about the epistemic premises involved in the co-creation of knowledge in participatory settings. Based on our empirical examination, we argue that integrating various forms of knowledge in co-creation processes is challenging and that there are epistemic aspects of these processes that should be further discussed.

The paper presents and analyses an exemplary case of what we call an 'epistemic dilemma' that occurred during the participants' process of co-creating a registration tool for research and clinical purposes. Using the analytical concepts of 'knowledge object', 'form' and 'task', we illustrate that the dilemma occurs at the intersection of the researchers' and clinicians' different knowledge interests and different epistemic criteria for the knowledge that they want to produce. The analysis also demonstrates how the dilemma impacts the collaborative process and further knowledge production in the project.

The analysis forms a backdrop for critical questions regarding the epistemic premises of knowledge co-creation in participatory research settings, especially pertaining to the expectations that participatory research strategies will generate outcomes that are more relevant to practice. Our results indicate that we need more insight into the epistemic premises of integration of different knowledge interests and the epistemic criteria for research in participatory settings.

5. Discussion

5.0. Introduction

The background for this study is made up of two interrelated issues. One is the growing body of KT research, and the increasing criticism of its weak theoretical foundation, which has led to repeated calls for improved insight into knowledge translation processes and further theorization. The other is the widespread use of participatory research as a strategy for knowledge translation, despite inconsistent evidence and lack of knowledge about how knowledge becomes translated in these settings. Against this background, the overall question asked in this study is: How does knowledge become translated in participatory research?

The formulation of the question as a general one, rather than one that seeks specific answers, has allowed for an open investigation of KT processes in participatory research.

The following discussion will address how the results of this study can supplement and expand the existing notions of participatory research as a KT practice. In this discussion, I will present current descriptions of integrated knowledge translation (iKT). The presentation contains definitions as well as an elaboration of the previously mentioned model which delineates two separate KT paradigms: the iKT paradigm and the transfer paradigm. I will use the insights generated in this study to shed light on the notions of participation, knowledge and translation that are reflected in the current iKT descriptions.

5.1. Expanding notions of participatory research as knowledge translation strategy – The case of integrated knowledge translation (iKT)

5.1.1. An introduction to integrated Knowledge Translation

According to the Canadian Institute of Health Research (CIHR), integrated KT is an approach for doing research that 'applies the principles of knowledge translation to the entire research process'. A central premise of iKT is that 'involving knowledge users as equal partners alongside researchers will lead to research that is more relevant to, and more likely to be useful to, the knowledge users' (CIHR - Canadian Institutes of Health Research, 2016a, p. 2). It is further said that 'iKT has a longstanding tradition in many disciplines but has usually gone by other terms, such as collaborative research, participatory action research, community-based participatory research, co-production of knowledge or Mode 2 research' (CIHR - Canadian Institutes of Health Research, 2016a, p. 2).

Although this presentation describes a central premise and the ultimate goal of iKT, it provides little information about how participation, described as 'involving knowledge users as equal partners alongside researchers' will generate translation of knowledge, or how translation of knowledge will result in research that is 'relevant and useful to knowledge users'.

Seeking answers to these questions, I will use the chapter from the book *Knowledge Translation in Health Care: Moving from Evidence to Practice* (Straus et al., 2013a) that describes iKT. In this chapter, Bowen and Graham (2013) introduce a distinction between two KT paradigms; 'the knowledge transfer paradigm' and 'the engagement paradigm'. The two paradigms are in turn aligned with two different practices of KT: end-of-grant KT and integrated KT (iKT). The transfer paradigm is described as the biomedical paradigm in which knowledge production processes are separated from translation processes. In this paradigm, translation is a matter of dissemination. In the engagement paradigm, the translation takes place in the knowledge production process, by means of involving knowledge users as equal partners (Bowen & Graham, 2013, pp. 16-18).

5.1.2. KT paradigms model

The two paradigms are further illustrated by this table (Bowen & Graham, 2013, p. 15):

Table 1.2.1 The KT paradigms

The knowledge transfer paradigm	The engagement paradigm
Biomedical roots	*Social science roots*
Researcher unilaterally makes decisions about: • the research question • study design • data collection approaches • outcome measures • analysis of results • relevance of findings • dissemination of findings	Coproduction of knowledge: researchers and users collaboratively make decisions on: • the research question • study design • data collection approaches • outcome measures • analysis of results • relevance of findings • dissemination of findings
Users are subjects or collaborators to achieve researchers' goals	Researchers and users share decision making power: they are equal partners
Research skills needed	Research and other professional skills and experiential knowledge needed and equally valued
Recipients use research results	Collaborative engagement between researchers and users facilitates assessment of results and their applicability
Focus on generic findings, applicable in all contexts	Recognition of non-research sources of evidence; importance of synthesis and application of research results in context
KT goal: more availability of research	KT goal: increased application of research through better quality, relevant research
Focus on communication and dissemination • Information transmission: one way transfer from expert to users	Focus on partnership, power sharing, and mutual respect • Knowledge exchange: mutual learning
Focus on single issue	Focus on change in how business done (research and health organizations)
Focus on content	Focus on process
Emphasis on increasing user capacity to use results	Emphasis on change management

Following this table, the key aspect of iKT is involvement of knowledge users as a means to move the translation of knowledge into the knowledge production process (as opposed to after the knowledge has been produced). The table describes knowledge user involvement using terms such as 'co-production', 'collaboration', 'shared decision making power', 'equality', 'mutuality', 'recognition', 'partnership', 'power sharing' and 'mutual respect'.

The model postulates involvement and collaboration as means of achieving a goal, namely co-production of knowledge with the purpose of increasing implementation.

Further, the table operationalizes the insertion of knowledge translation into the knowledge production process as collaborative decision-making on certain issues including the research question, study design, data collection approaches, outcome measures, analysis of results, relevance of findings and dissemination of findings. While this list is includes the entire research process, the definition by a minimum of involvement is also much used, according to which iKT, as a minimum, 'should involve knowledge users in shaping the research questions, interpreting the study findings and crafting messaging around them, as well as move the research results into practice' (Perry, Salsberg, & Macaulay, 2016).

Both descriptions thus list the aspects of a research process in which users should be involved. Hence, when conducted within the research process, KT is presented as collaborative decision-making about these aspects of the research project. The model thus provides some clues about *when* KT is to happen, but it provides very few clues for what translation is, beyond being merely *participation as such* (collaborative decision making). Beyond this, the iKT descriptions offer few clues that may yield understanding about how collaborative decision making is done or what kind of knowledge may come out of it.

5.1.3. Participatory research and iKT: opening the black box

Descriptions of iKT seem to reproduce the black boxes of KT; that is, it provides no description of how knowledge becomes translated in these settings. One question to be asked, then, is how the insights from this study can contribute to opening up this black box and to supplement the existing iKT model by providing insight into the actual processes?

According to the table, the first aspect of the research that should be collaboratively decided is the shaping of research questions. The process is described as integrating various forms of knowledge in a power-neutral, collaborative process, but we lack a description of how researchers and knowledge users arrive at research questions that will generate more practice-relevant results.

In the second paper, we present a strategy by which the participants translate knowledge between the settings of research and clinical practice. This strategy involves identification of practice-specific knowledge objects, forms and tasks within the participants' respective contexts of research and clinical treatment. By envisioning the possible use of some possible result, the participants were able to identify mutual use of research across the contexts.

If made explicit, this is one translation strategy that might apply to a collaborative process of identifying and deciding upon research questions that can explicate what this process actually entails. Identification of practice-specific objects, forms and tasks (practice-specific questions in the involved knowledge users' contexts) can help identify various research questions. In turn, this can form a basis for an explicit process in which the participants engage in discussions about the possible usage of the various questions and the possible form and use of the results they may generate.

According to the minimum standard of involvement in iKT presented by Perry et al. (2016), the second way in which knowledge users should be involved is in the 'interpretation of results and the crafting of messaging around them'. Hence, the framing of the research results should be done collaboratively.

Again, the strategy of translating knowledge across context-specific usage can provide insight in and explicate the actual process. According to our results, this can be done by means of identifying the possible use of the results in various practices and the practice-specific tasks that these practices entail. Knowledge translation in this phase may thus be seen a matter of addressing the various practices' knowledge tasks and exploring how they might use the results. With the concepts provided in this study, crafting messages can be explicated as the formulation of potential use for practice-specific tasks. I will use an example from our data material to illustrate how:

> C1: Well, as we talked about yesterday, R4, about for example getting a 25 year-old multi-traumatized traffic accident victim back to work and enabling him to support himself for 40 years. Off course it's hard to quantify, but the alternative is maybe to live in a nursing home for the next 40 years, and the social economic gain in what we do. Or keeping the chronics in work, or getting long term sick leaved back into work, if we could manage to show these things, or – I have two MS patients who received disability pension, who got started with physiotherapy and could return to work again, for example, you know, the social economy in these things.

In this excerpt, one of the clinicians engages in what may be seen as crafting a political message by means of mediating between her experience as a physiotherapist and the production of statistical knowledge. How is this done exactly?

The clinician is referring to a discussion she and one of the researchers has had about an example – a case about a patient who is a 25-year-old multi-traumatized traffic accident victim. The knowledge task that the clinician refers to is: *'*helping the patient back to work and enabling him to support himself for 40 years*'*. She is speaking about her physiotherapy practice; the work she does with the patient may help the person get back to work, and in turn enable him to support himself for the next 40 years. The alternative, she says, is that he lives in a nursing home for 40 years. She then makes an analogy to the exemplary case: 'or keeping 'the chronics' in work or helping people on long-term sick leave back to work'. What she does, then, is use an example (from her experience) to make analogical cases where physiotherapists help people who would otherwise be in need of public support back into situations where they are self-supporting.

Hence, the single object (the patient) is first translated into an example for other groups of patients (the chronic, the patients on long term sick leave) which she ultimately turns into objects of statistical knowledge when she says: 'if we can manage to show things like that'. She wants to create statistics that capture the value of preventive or maintenance physiotherapy work (in contrast to merely measuring patients' recovery), in order to ultimately show 'the social economic value of those things'.

In order to craft this political message, she alters the knowledge object several times; she begins with a single object that is the patient and then translates the object into groups of patients and ultimately into an object of research. She also refers to several tasks. The first task is 'to get the multi-traumatized traffic accident victim back to work and to support him/herself again', which refers to the physiotherapy work that is done with the patient. Then as the objects change, the task changes accordingly to something that can be summarized as 'show the social economic value of preventive physiotherapy', which is related to the statistical task of 'managing to show these things'.

In this excerpt, the physiotherapist wants to produce research that can show effects of physiotherapy that are otherwise not accounted for. With basis in her experience from her practice, she identifies the kind of research that is needed to craft a message that serves to strengthen the professional and political position of physiotherapy.

The summary of the chapter on iKT says: 'Researchers must recognize that if their research is to be useful and used, it must answer important questions of concern to knowledge users; and integrated with contextual evidence. Only in this way will it be actionable in a specific setting' (Bowen & Graham, 2013, p. 21). With this message, the authors confirm that the final aim of KT is to provide research results that are more likely to be integrated in and change the practice of health care professionals. The results from this study may, however, be used to raise some new research questions about iKT in action, and provide insights into how to create context-specific relevance; for instance, how to address questions of context-specific relevance. The analytical concepts that are provided by this study can be used to identify how knowledge is presented in and altered through verbal communication. Hence, it helps to make the knowledge translation processes explicit and available for further inquiry. As such, the conceptual framework is thus an important contribution in terms of opening the black box of translation. It also illustrates the importance of studying KT on a micro-level, to understand how translation of knowledge can be done in dialogue.

5.1.4. Epistemically neutral zones

'What is this knowledge that we seek to 'exchange'?' The question has been posed by Trisha Greenhalgh. She asks:

> Is it explicit or tacit, individual or collective, generic or specific, context free or context bound, value neutral or value laden? To what extent do these dualities, well-rehearsed in the literature, adequately capture what we know and not know about knowledge and its exchange? (Greenhalgh, 2010, p. 492)

Her question contains a critique of the dichotomous understanding of knowledge underpinning the two KT paradigms presented in the table above. Do they adequately capture what we know about knowledge and its translation? What are the assumptions on which these paradigms rest? While the assumptions of the dissemination paradigm have been extensively examined by critic, as presented earlier in this thesis, the assumptions about knowledge and translation in the exchange paradigm have been less examined.

How are knowledge and translation understood in the engagement paradigm? Once again the model provides only clues; in the engagement paradigm, knowledge is understood as something that can be co-produced by collaboratively making decisions regarding certain aspects of the research. According to the table, several forms of knowledge are included in

this co-production, like ‘research’, ‘other professional skills’ and ‘experiential knowledge’ (Bowen & Graham, 2013, p. 15).

The table presents the KT goal as ‘increased application of research due to higher quality and improved relevance’ (Bowen & Graham, 2013, p. 15). The goal then is implementation of research results, but results that integrate different forms of knowledge and thus are assumed to be more relevant and applicable in practice.

The goal of applying, and thereby increasing, use of research-based knowledge is thus the same as in any KT setting – a matter of disseminating and neutrally applying a prefabricated message. The model also reproduces the idea of a rational actor, that is, an actor that, given the right (relevant and actionable) evidence, will apply this in practice. Hence, what distinguishes the dissemination paradigm and the engagement paradigm is the *nature of the research results*.

The research results are different because in the engagement paradigm, the translation of knowledge takes place *in* the knowledge production phase (as opposed to after it). In this paradigm, KT is described as the appreciation and integration of the participants’ different knowledge in decisions regarding the research in a power-balanced and dialogic process (referred to as co-production). While the table does not explicitly address the relationship between making decisions and the enactment of a power-balance, it is likely that the power-balance is assumed to facilitate mutuality and prevent prioritization of one group, or one type of knowledge, over the others.

The description of the engagement paradigm does however not address the question of *what kind of research questions or research methods* will generate these kinds of relevant and actionable results. The model is seemingly placed in a politically knowledge-neutral space where ‘anything goes’ in terms of identifying research questions and otherwise shaping the research project. However, considering the model’s expectation of outcomes in terms of ‘actionable research’, the description of such an epistemological neutral research process seems like a paradox. For wouldn’t the production of ‘applicable knowledge’ require certain epistemological criteria?

IKT, with its explicit goal of 'closing the gap between research and practice' clearly sits within an evidence-based practice paradigm which holds certain epistemic criteria for what is considered 'actionable research results'. Hence, the idea of 'applicable knowledge' echoes a restricted knowledge concept which in turn relies on a research process guided by strict academic criteria. However, these epistemic issues are not explicitly addressed, which wrongly gives the impression that processes of participation or co-creation are epistemically neutral zones.

During the observations of the coordinator meetings we recurrently observed how the participants struggled with issues of epistemological criteria to the knowledge they wanted to produce. How to understand this? We address this issue in the third paper, where we analyse the participants' different knowledge interests and requirements for the knowledge that is produced.

5.1.5. Epistemic criteria in knowledge co-production

In the third paper, we introduce the term epistemic dilemmas to describe a situation in the co-creation processes where the participants' incompatible epistemic criteria for the knowledge they want to produce in the project cause dilemmas for further knowledge production.

Based on an analysis of our observation data, we illustrate how the participants enact and maintain different knowledge interests and epistemic criteria to the knowledge they want to obtain, which is ultimately tied to their intended use of the knowledge. The clinicians require that the knowledge be useful and relevant to their practice. They want knowledge that is instantly accessible and individual, as well as relevant within the frames of *clinical physiotherapy practice*. The researchers, however, require that the knowledge be obtained by methods that adhere to research criteria for sound research.

The engagement paradigm model, however, fails to discuss how such differences should be aligned in co-creation processes. While the notion of a paradigm is usually used to refer to hegemonic regimes that provide legitimacy to certain ways of producing knowledge and certain forms of science, the engagement paradigm model stands in an epistemological vacuum.

Our analysis illustrates that while the participants in FYSIOPRIM were deeply committed to ideal of co-creation and sharing decision-making power, they encountered difficulties related to epistemology, which led to negotiations and prioritization of one kind of knowledge over the other.

5.1.6. An epistemic paradox of iKT

In the third paper, we illustrate how the epistemic dilemma based on the participants' fundamentally different criteria for the knowledge they want to produce results in a process of negotiation wherein the participants argue for the importance of their knowledge. This has several consequences. One is to reinforce a 'two-communities' logic; that is, instead of reducing distance between the participants, it seems to magnify their different knowledge interests. Another is that this process of negotiation ultimately becomes decisive for the kind of knowledge that is produced. The participants' different criteria for the knowledge requires that the knowledge be produced by different methods. When these cannot be combined, it imposes a choice of which knowledge to produce. Hence, the co-creation process is turned into a series of negotiations.

As we see it, this is related to epistemological terms for co-creation in participatory settings. Our analysis illustrates that despite major efforts to escape the knowledge/power issue, the lack of criteria for what kind of knowledge should be produced turns the process into a scene where power/knowledge dynamics are as prominent as ever. When placed in a position where the possibilities of research are threatened, the researchers stress the importance of creating methodologically sound knowledge in order to maintain the chances of academic impact.

Seeing how fundamentally different knowledge interests and epistemic criteria the researchers and the clinicians bring to the table, it seems important to ask what kind of epistemic paradigm iKT is part of. That is, what ways of creating knowledge and what ways of knowing are legitimate in this setting?

The iKT idea sits within the paradigm of evidence-based practice which poses certain epistemic criteria to 'actionable' knowledge; the proliferating use of participatory research strategies is based in expectations about the potential these strategies have to 'close the gap' between research and practice by creating more relevant research. Also, researchers

subscribe to scientific paradigms, which expose them to expectations to present scientifically sound research results according to scientific criteria. That is, participatory research settings are unlikely to escape scientific epistemic criteria. Our analysis of an epistemic dilemma makes tangible what we suggest is an inherent paradox in the iKT paradigm related to epistemic criteria. How should participants in participatory research balance between ideals of power-neutrality, shared decision-making and integration of various knowledge forms on one side, and scientific and evidence-based criteria for production of rigorous science on the other?

5.2. Worlds together/worlds apart

5.2.1. Situated knowledge and multiple ontologies

Finally, I want to elaborate on the issue of epistemic dilemmas. While the third paper illustrates that the participants' different epistemic criteria for the knowledge suggest different methods for obtaining knowledge that answers to their way of knowing, there is something else to be explored.

Framing the issue as pertaining to epistemic premises emphasizes that there is a discrepancy in the participants' methods for getting to know properly (what is considered properly in the various contexts). And while this is an important point in relation to epistemic ambitions of co-creation, it fails to consider that epistemic dilemmas also incorporate the issue of *what becomes known.*

In this last section of this thesis I want to return to Annemarie Mol's (2002) notion of 'multiple ontologies' in order to make an argument about an alternative view on knowledge co-creation in participatory research that can hopefully contribute to the further theorization of such events.

Mol makes the argument that different knowledge practices use and produce different knowledge about different knowledge objects. By conducting what she calls a 'praxiographic study' of the medical condition atherosclerosis she studies how atherosclerosis is enacted by the various actors involved in the diagnosis and treatment of the disease. What she finds is multiplicity: different atherosclerosis and different knowledge about it creates a diverse object which is dispersed in different sections of the hospital. She says:

> Atherosclerosis in hospital Z is one thing here and is something different a little further along. It is both pain and a clogged-up artery, but not in the same site. It is pain in diagnosis and a clogged-up artery in treatment. Reality is distributed. (Mol, 2002, p. 96)

This points to something that is important to know about knowledge: it is fundamentally situated – but not in a single coherent world. Rather, knowledge is situated in diverse sites, sites where different practices unfold. In these different practices, the people that are engaged in them will ask different questions. For instance, Mol shows, diagnosis and treatment of atherosclerosis entails asking the questions of 'what is the matter?' and 'what to do?' (Mol, 2002, p. 91). The questions require different knowledge – knowledge that might require different methods of production.

What Mol's analysis powerfully illustrates is that knowledge is not only a matter of epistemology, but also about ontology. Knowledge is tied to the practice in which it is produced and used. It is about different knowledge objects and takes different forms depending on what kind of question it is intended to answer.

Different kinds of knowledge thus co-exists, but as Mol illustrates, it exists in different places. It is distributed. According to Mol, this is an important prerequisite for avoiding conflict between different versions of an object and different enactments of knowledge in relation to it. Because they live in different places, the various versions of atherosclerosis may co-exist peacefully, she says (although she also illustrates cases where they do not) (Mol, 2002, pp. 115-117).

5.2.2. Worlds together/worlds apart. Co-creation at the nexus of ontological and epistemological circumstances

Mol's demonstration of different enactments of atherosclerosis offers, with some adaption, an alternative take on the participatory research ambitions of knowledge 'co-creation'. Against the backdrop of her analysis, participatory research strategies can be seen as sites of hybridity where actors involved in practices that enact different versions of objects meet.

What Mol's analysis highlights is that the practice of co-creating knowledge is not merely a question of how to know, but also of what is being co-produced; if there are multiple versions of objects, it becomes relevant to ask which 'one' to attend to. In a participatory

research projects, the participants will not only want to know in different ways, but will also want to know about different knowledge objects.

What counts as knowledge is likely to differ in a participatory research project regardless of who takes part – patients, clinicians and policy-makers will all be concerned about different things in different ways. The participants are thus brought together temporarily, but they take with them their different 'worlds' of practice and the highly diverse questions that are asked in them. So what is the 'reality' that is enacted in participatory research settings?

IKT strategies assume that participants are able to agree, across their fundamentally varying knowledge interests, on what kind of knowledge to produce about what. They are also expected to produce knowledge that answers to the currently hegemonic epistemic regulations for research knowledge. Knowledge translation and co-creation in participatory research can thus be understood as production of knowledge at the nexus of various ontological and epistemological circumstances, something which opens up for further discussion about which ontological and epistemological circumstances should count in these settings.

6. Conclusion

The overall question in this study was: How is knowledge translated in participatory research? In posing this question, the study had two primary aims: to provide empirical insights into actual processes of knowledge translation, and to utilize these insights to contribute to further theorizing about knowledge and translation.

The discussion in this thesis aims to highlight how the study responds to these two aims. It illustrates not only a strategy utilized by the participants in FYSIOPRIM to translate knowledge, but also limitations on their knowledge translation, as well as on the possibilities of co-creation. The final sections of the discussion focus on situations in which knowledge translation fails and co-creation breaks down. Considering the positive descriptions of participatory research strategies and the high hopes of possible outcomes of such efforts, it seemed important to draw attention to, and attempt to understand, these tensions. The discussion sheds light on tensions and inconsistencies in participatory research as tied to weaknesses in iKT notions of knowledge, translation and co-creation, related to epistemological and ontological aspects of knowledge integration.

The analytical framework for analysis of knowledge translation in verbal communication that has been developed in this study serves to identify and understand not only epistemological, but also ontological aspects of knowledge translation and co-creation and may be used to demonstrate that knowledge production takes place at the nexus of epistemological and ontological circumstances.

The empirical accounts that are offered do not tell stories about *what really went on* in the coordinator meetings. However, they provide insight into some aspects that we, given the theoretical framework that guided the investigation, found to be illustrative of how knowledge translation can unfold, or not, in the setting of participatory research. Hence, the descriptions versions of events filtered through this study's lens of interest, and with the purpose of creating knowledge that serve to inform the questions of research.

A fundamental point of departure that runs through most streams of STS writings is that there is no privileged position from which one can produce objective representations of the world that tell the story of what something really is, or what really went on. This limitation applies to any scientist, making it necessary to for scientists and researchers to ask questions

about what kind of knowledge may be produced from their own attempts to know something about some part of the world. Self-reflexive deliberations pertain to questions of what the results can and cannot say something about and the credibility of the claims.

As has been pointed out already, this study does not attempt to provide any final or exhaustive answers to the question of how knowledge translation is performed in participatory research settings. Rather, the objective of this study is to provide empirical accounts from the empirical site that was studied, and more specifically, accounts that serve to give insight into the translation of knowledge that takes place there. The accounts that are given are true in the sense that the results are generated in a methodologically transparent process that allows the reader to know how they were constructed and thereby assess their credibility. There may of course always be other accounts.

The relatively wide question in this study allowed for an openness in investigation. However, the format of presentation demands further limitations in scope; the scope must be narrowed down. The researcher ultimately faces not only questions of methodology, but also questions regarding which accounts are *credible* and which seem *timely and relevant* to make, considering the existing literature they aim to contribute to. Hence, if this study does not further pursue the analysis of more knowledge translation strategies, or different ways of translating knowledge, it is not because these did not take place. The participants in FYSIOPRIM may have verbally translated knowledge in several ways that have not been presented here. However, the accounts that I give demonstrate, in my opinion, key aspects that should be highlighted and further studied in order to achieve improved understanding about knowledge translation in participatory research.

The written results in this study present and discuss some topics using examples. The chosen topics of analysis were selected on the basis of prolonged observation and analyses in which the topics were repeatedly evident. However, a large part of the data remains hidden to the reader, who is only presented with illustrative examples. The gap between the examples and the data and analytical work may only be filled with descriptions of processes of analysis.

The issue of identifying something that has value beyond the one or few cases of empirical investigation presented in a qualitative research study is much discussed. This study makes no claims that the descriptions from the empirical study are generalizable to other empirical

settings. The analyses are, however, attempts to grasp something of value to their own and other similar settings. This study thus aims to describe something that may be analytically transferable to other settings or that may be used to point out issues that may be relevant in other similar settings. For instance, the analytical concepts pertain to a level of knowledge that is not empirically specific, but which allows for identification of knowledge in verbal communication. Hopefully, these terms may be used to identify and analyse knowledge in other settings where knowledge is presented verbally or maybe even in writing. The point is that while the results that are presented in this study do not aim to provide any universal truths about knowledge translation, they hopefully contribute to drawing attention to epistemic and ontological aspects of knowledge translation and co-creation in similar empirical spaces, namely spaces of interprofessional or interdisciplinary collaboration. Thus, the results may hopefully be relevant and useful for identifying further research questions that can be posed to settings of participatory research, but also to actors involved in collaborative endeavours with aims of translating or co-creating knowledge.

Finally, while this study refrains from making universal claims, it raises questions about existing notions of knowledge, translation and co-creation that underpin the proliferating use of participatory research. The results from this study suggest that the optimistic assumptions about knowledge translation and knowledge co-creation by stakeholder involvement in research would benefit from further investigation and discussion.

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Appendix

I.

Norsk samfunnsvitenskapelig datatjeneste AS (NSD): Tilbakemelding på melding om behandling av personopplysninger

(Norwegian Social Science Data Services (NSD): Response to processing of personal data report)

II.

Norwegian Social Science Data Services (NSD): Affirmation

III.

Forespørsel om deltakelse i forskningsprosjekt

(Letter of information and request for informed consent)

Norsk samfunnsvitenskapelig datatjeneste AS
NORWEGIAN SOCIAL SCIENCE DATA SERVICES

Harald Hårfagres gate 29
N-5007 Bergen
Norway
Tel: +47-55 58 21 17
Fax: +47-55 58 96 50
nsd@nsd.uib.no
www.nsd.uib.no
Org.nr. 985 321 884

Ida Lillehagen
Institutt for helse og samfunn
Universitetet i Oslo
Postboks 1130 Blindern
0318 OSLO

Vår dato: 06.03.2013 Vår ref:33470 / 3 / KH Deres dato: Deres ref:

TILBAKEMELDING PÅ MELDING OM BEHANDLING AV PERSONOPPLYSNINGER

Vi viser til melding om behandling av personopplysninger, mottatt 19.02.2013. Meldingen gjelder prosjektet:

33470	*Performing knowledge translation – The practice of knowledge translation between practitioners and researchers in participatory research*
Behandlingsansvarlig	*Universitetet i Oslo, ved institusjonens øverste leder*
Daglig ansvarlig	*Ida Lillehagen*

Personvernombudet har vurdert prosjektet og finner at behandlingen av personopplysninger er meldepliktig i henhold til personopplysningsloven § 31. Behandlingen tilfredsstiller kravene i personopplysningsloven.

Personvernombudets vurdering forutsetter at prosjektet gjennomføres i tråd med opplysningene gitt i meldeskjemaet, korrespondanse med ombudet, eventuelle kommentarer samt personopplysningsloven og helseregisterloven med forskrifter. Behandlingen av personopplysninger kan settes i gang.

Det gjøres oppmerksom på at det skal gis ny melding dersom behandlingen endres i forhold til de opplysninger som ligger til grunn for personvernombudets vurdering. Endringsmeldinger gis via et eget skjema http://www.nsd.uib.no/personvern/meldeplikt/skjema.html. Det skal også gis melding etter tre år dersom prosjektet fortsatt pågår. Meldinger skal skje skriftlig til ombudet.

Personvernombudet har lagt ut opplysninger om prosjektet i en offentlig database, http://pvo.nsd.no/prosjekt.

Personvernombudet vil ved prosjektets avslutning, 30.05.2016, rette en henvendelse angående status for behandlingen av personopplysninger.

Vennlig hilsen

Vigdis Namtvedt Kvalheim

Kjersti Håvardstun

Kjersti Håvardstun tlf: 55 58 29 53
Vedlegg: Prosjektvurdering

Personvernombudet for forskning

Prosjektvurdering - Kommentar

Prosjektnr: 33470

Personvernombudet finner informasjonsskrivet til utvalget tilfredsstillende utformet i henhold til personopplysningslovens vilkår.

Prosjektet skal avsluttes 30.05.2016 og innsamlede opplysninger skal da anonymiseres og lydopptak slettes. Anonymisering innebærer at direkte personidentifiserende opplysninger som navn/koblingsnøkkel slettes, og at indirekte personidentifiserende opplysninger (sammenstilling av bakgrunnsopplysninger som f.eks. yrke, alder, kjønn) fjernes eller grovkategoriseres slik at ingen enkeltpersoner kan gjenkjennes i materialet.

Norsk samfunnsvitenskapelig datatjeneste AS
NORWEGIAN SOCIAL SCIENCE DATA SERVICES

Harald Hårfagres gate 29
N-5007 Bergen
Norway
Tel: +47-55 58 21 17
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Ida Lillehagen
Institutt for helse og samfunn
Universitetet i Oslo
Postboks 1130 Blindern
0318 OSLO

Vår dato: 08.05.2013	Vår ref: 33470 HIT/LR	Deres dato:	Deres ref:

AFFIRMATION

The Data Protection Official for Research at the Norwegian Social Science Data Services (NSD) finds that the processing of personal data in relation to the project *"Performing knowledge translation – The practice of knowledge translation between practitioners and researchers in participatory research"* is in accordance with the Norwegian Personal Data Act, ref. our letter to Ida Lillehagen March 7th 2013.

Sincerely,

Vigdis Namtvedt Kvalheim

Hildur Thorarensen

Kontaktperson: Hildur Thorarensen tlf: 55 58 26 54

Forespørsel om deltakelse i forskningsprosjektet

"Kunnskap i samhandling – En studie av kunnskapsutveksling mellom deltakere i et forskningsprosjekt"

Bakgrunn og hensikt
Dette er en forespørsel til deg om å delta i et forskningsprosjekt som undersøker hvordan kunnskap utveksles mellom deltakerne i koordinatormøtene for forskningsprosjektet FYSIOPRIM. Hensikten med prosjektet er å beskrive hvordan kunnskap utveksles og oversettes mellom deltakerne, og å skape innsikt i ulike måter å dele, ta i bruk, fange opp og produsere kunnskap. Vi er interessert i å sette ord på kunnskapsutvekslingen slik den foregår i kommunikasjonen i møtene. Hvordan klarer for eksempel deltakerne å fange opp, dele og gi mening til eksempler fra klinikken i samtalens løp? Og hvordan klarer de å relatere presenterte forskningsresultater til kunnskapen de selv spiller ut i dialogen? Vi er også opptatt av hvordan måtene å kommunisere kunnskap på endrer seg over tid.

Studien vil danne grunnlaget for en ph.d for Ida Lillehagen. Prosjektet er plassert og finansiert ved Institutt for helse og samfunn, avd. for helsefag, Universitetet i Oslo (UiO)

Hva innebærer studien?
Du som er deltaker i koordinatormøtene blir informant i prosjektet gjennom å være til stede, da dette prosjektet studerer disse møtene som en arena for kunnskapsutveksling. Du kan også bli forespurt om å delta i intervjuer hvor du blir bedt om å kommentere og utdype kunnskapsutvekslingen i bestemte situasjoner fra koordinatormøtene.

Studien innebærer at det vil være en observerende forsker (Ida Lillehagen) til stede i koordinatormøter i regi av FYSIOPRIM. I tillegg vil diskusjonene i møtene tas opp med båndopptaker. Videre vil det foretas intervjuer/oppfølgingssamtaler med informanter. Disse intervjuene vil dreie seg om noen bestemte situasjoner fra koordinatormøtene som den observerende forskeren har festet seg ved, og informantene vil bli bedt om å kommentere på deres oppfatning av kunnskapsutvekslingen i situasjonen.

Metode
Studien er en kvalitativ studie basert på observasjoner og intervjuer. Både møtene som observeres og oppfølgingsintervjuer vil bli tatt opp på bånd.

Koordinatormøtene i FYSIOPRIM er arenaen som studeres. Videre vil noen, og kanskje alle, informantene bli bedt om å delta i intervjuer. I disse intervjuene vil de bli presentert utvalgte utdrag fra møtene og bli bedt om å kommentere på disse situasjonene med fokus på kunnskapsutvekslingen som skjer der. De kan også bli presentert foreløpige analyser og bli bedt om sin oppfatning av disse. Intervjuene er altså en måte å utvide forståelsen og tilføre analysen flere perspektiver. I tillegg kan analyse fra observasjonene presenteres i møtene og diskuteres, noe som også vil kunne inngå som deler av datamaterialet.

I observasjonene vil forskeren som er til stede fokusere hovedsakelig på å identifisere innholdet i kunnskapen, ulike prinsipper for organisering av kunnskap og hvordan kontekst eller rammene for situasjonen påvirker eller skaper grunnlag for kunnskapsutveksling. Observasjonene vil derfor ha mest fokus på situasjonene. Det er ikke studiens hensikt å fokusere på personer, eller å evaluere verken personers uttalelser eller om kunnskapsutvekslingen er god eller ikke.

Mulige fordeler og ulemper
Det vil være kjent at prosjektet studerer kunnskapsutveksling i FYSIOPRIM. Det vil derfor være mulig for andre å identifisere hvem som har deltatt som informanter i prosjektet. Spesifikke utsagn vil derimot ikke kunne gjenkjennes eller knyttes til enkeltpersoner. Direkte gjenkjennbare utsagn (spesielt som inneholder navn/stedsnavn) anonymiseres.

I formidling av resultater fra studien vil eventuell sitering eller referanse til deltakere i gruppa vil være anonymisert til for eksempel forsker 1, 2, 3 osv eller deltaker 1, 2, 3 osv. Ingen personer vil bli navngitt. Det vil likevel kunne være mulig for personer som kjenner deltakerne godt å gjenkjenne sitater. Det vil kun være aktuelt å gjengi sitater som kan bidra til å belyse hvordan kunnskap formidles, adopteres og tas i bruk videre i samtalene og utvikles gjennom diskusjonene. Fokus er gjennomgående måter å formidle kunnskap på, ikke individuelle uttrykksmåter.

Det vil kunne påvirke møtene at en forsker er tilstede og at diskusjonene tas opp på bånd. Den observerende forskeren etterstreber å utføre observasjonene på en måte som ikke inngriper eller forstyrrer unødvendig. Det kan likevel oppleves forstyrrende eller ubehagelig å bli observert og tatt opp på bånd. Dette forsøker vi å gjøre minst mulig inngripende ved å gi god informasjon om prosjektets tema og hensikt, og hva som er fokus for observasjon i møtene. Forstyrrelseselementet vil også dempes ved at forskeren er til stede over tid og blir kjent med informantene.

Tidsskjema
Datainnsamling er planlagt å pågå fra høsten 2011 og til FYSIOPRIMs avslutning i 2015. Observasjoner gjort i 2011- 2012 er gjort med muntlig samtykke. Oppstart for observasjoner med båndopptak vil være januar 2013. På denne måten vil det være mulig å studere koordinatormøtene gjennom flere faser, fra planlegging til gjennomføring og til resultater kommer. Vi ønsker å undersøke om kunnskapsutvekslingen har ulik form i de ulike fasene av prosjektet. Det vil publiseres resultater fra prosjektet underveis, hovedsakelig i form av artikler og muntlige presentasjoner.

Hva skjer med informasjonen?
Informasjonen som registreres (opptak av dialog og observasjonsnotater) skal kun brukes slik som beskrevet i hensikten med studien. Verken observasjonsnotater eller transkripsjon inneholder navn eller andre opplysninger som kan knyttes til enkeltpersoner. Alle transkriberte data oppbevares på UiOs nettverk.

Ph.d prosjektet er planlagt avsluttet i mai 2016. Datamaterialet (observasjonsnotater, lydfiler, transkripsjoner) vil arkiveres som anonymiserte transkripsjoner i tråd med gjeldende retningslinjer, mens lydfiler vil slettes ved prosjektslutt. (jf. NSD, personvernombudet for forskning)

Frivillig deltakelse
Det er frivillig å delta i studien. Dersom du ønsker å delta, undertegner du samtykkeerklæringen på siste side. Om du nå sier ja til å delta, kan du senere trekke tilbake ditt samtykke. Du kan når som helst og uten å oppgi noen grunn trekke ditt samtykke til å delta i studien. Dersom en eller flere av informantene ikke ønsker å delta, eller trekker sitt samtykke vil observasjoner i koordinatormøtene avsluttes. Allerede gjennomførte fortolkninger av innhentet materiale vil ikke kunne reverseres. Du kan kreve egne utsagn fjernet fra allerede innhentet materiale (slettes fra transkribert materiale), og dermed ikke inngå i videre fortolkning.
Det er også mulig å ikke delta i, eller trekke seg fra intervjuer uten at samtykket i sin helhet trekkes. Materiale fra gjennomførte intervjuer vil da slettes, og påbegynte analyser vil ikke videreføres.

Dersom du senere ønsker å trekke deg eller har spørsmål til studien, kan du kontakte Ida Lillehagen, tlf. 22845350

Personvern
Opplysninger som registreres om deg knytter seg ikke til deg som person. Materialet som innhentes består av samtaler som foregår i møtene du deltar i, samt i de individuelle oppfølgingssamtalene. Det vil også bli tatt observasjonsnotater som omhandler situasjoner i møtene. Det vil altså ikke innhentes noen opplysninger om informantene, annet enn i tilfeller der dette kommer frem i samtalene. Studien fokuserer på samtalene mellom informantene, og ikke om informantene som personer.

Kun prosjektansvarlig, ansvarliges veileder, samt leder i FYSIOPRIM vil ha tilgang til datamaterialet. Andre informanter i prosjektet kan gjøres kjent med deler av materialet, da som en del av oppfølgingssamtalene. Dette vil altså være de samme informantene som er tilstede i møtene hvor data innhentes.

Universitetet i Oslo er ansvarlig institusjon for prosjektet, og er også finansierende institusjon. Data i prosjektet eies av UiO og vil bli behandlet og oppbevart i tråd med de gjeldende retningslinjer for databehandling- og lagring. Prosjektet kreves også godkjent av NSD. Dette søkes pr. januar 2013.

Økonomi og Universitet i Oslos rolle
Prosjektet er finansiert av UiO ved Institutt for helse og samfunn.

Informasjon om resultatene av studien
Analyser vil bli presentert for deltakerne underveis i studien. De vil også bli informert om og gjort kjent med resultater som publiseres i form av artikler og presentasjoner.

Samtykke til deltakelse i studien

Jeg bekrefter å ha mottatt og lest informasjon og er villig til å delta i studien

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(Signert av prosjektdeltaker, dato)