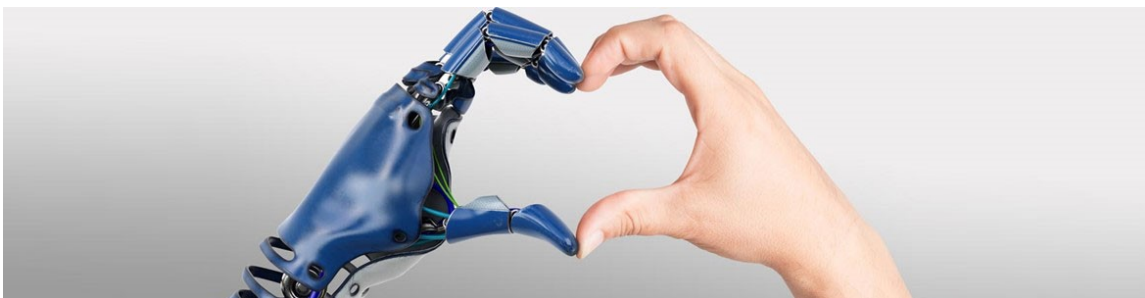OSLOMET

Amalie Bekkelund Hole

Welfare technology and the implementation process in home care

Challenges, pitfalls and success factors in implementation of KOMP pro and other welfare technology solutions

A qualitative study

Master's thesis in International Social Welfare and Health Policy

Oslo Metropolitan University, Faculty of Social Science

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Abstract:

Welfare technology is technology with the purpose of giving people the opportunity to better manage their health and improve their lives though innovation and implementation of new technologies. The goal is to make the welfare system better equipped to meet the future challenges in our society such as demographic and life expectancy changes. KOMP pro is one of the technologies with the purpose to help home care professionals find new and innovative ways of communicating with *users* of home care services through video calls and pictures. There is often scepticism about new technology in home care since it is viewed as a major change for many health care providers. Thus, making the implementation process potentially challenging. This is why I have chosen to focus on the implementation research and change management in my thesis.

Based on this information, the following research questions are formulated.

1. *How do the nurses experience the implementation of KOMP?*
2. *What experience do the nurses have with implementing welfare technology previously and how do they experience this implementation process?*

I have chosen qualitative interview, field notes and field work as an effective way to acquire knowledge about how *the nurses* experience the implementation of KOMP and their previous experiences with welfare technology implementation in their organization. This master thesis is also inspired by an interpretive view of qualitative methods.

The data is analysed using thematic analysis. Here, the essence of the informants' statements is extracted and discussed in light of implementation theory and the change management theory; ADKAR – **A**wareness, **D**esire, **K**nowledge, **A**bility and **R**einforcement.

The findings in this study show that the department was able to implement KOMP. However, my study reveals the pitfall of not rooting such an implementation process throughout all levels of the organization. In addition, I found that there is a need for involving the home care employees more throughout the entire implementation process in order to achieve adequate training and a sense of ownership to the technology and to the process.

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1 Introduction

During my field work as a nurse in home care, I experience both challenges, pitfalls and success stories connected to new technology. Both related to the service provider, of which I was part of, and of course the *user* or client.

The motivation of this master thesis is to explore my experiences further to contribute to make it easier and safer for the elderly to live at home and not at a nursing home. Also a few years ago when I was working in home care and visited a patient who, with stars in her eyes, told me about this machine that her son has bought her. She could see her grandchildren on it, and they sent her pictures and she felt like she was more a part of their lives. This machine, or system was named KOMP.

1.1 Description of KOMP pro

The concept of KOMP was developed with the goal to reduce social isolation mainly in the elderly population. Social isolation is described as the absence of social contact and can lead to loneliness. It is a state of being cut off from normal social networks (No Isolation, 2017). KOMP allows the *user* to have more interactive contact with family, friends and health care by sending photos, messages and make video calls to the *user* through an app on their phone or tablet. Through KOMP the *user* is able to participate more in the lives of the people in their social network and feel more connected. KOMP is designed to allow elderly *users* with no or limited digital skills to connect and therefore assumed reduced feeling of social isolation (No Isolation, 2020).

KOMP pro is an extension of KOMP developed to enable health care professionals to communicate with *users* using KOMP. It can be a substitute for a physical visit, an efficient way to give the *user* messages, remind them of appointments and guiding through procedures. With the help of an app the health care professionals can gather all their users of KOMP pro in one interface (No Isolation, 2021).

Figure 1illustration of KOMP pro in use

Figure 1 shows an illustration of KOMP pro in practice. To use KOMP pro at home, the user only needs KOMP in their home and an internet connection or 4G mobile network. KOMP looks like a small tv-screen with just an on/off button that also control the volume. The home care providers log into the KOMP pro system from the offices of home care with their own personal user. In this app they have access to all KOMP pro clients within their responsibility. Through this app, they can video call, send messages, update calendar or send photos to the *user*. If the *user* does not want to receive video calls or messages, they can choose to turn off KOMP. Data integrity is maintained by no data stored locally at home care's unit and storage of data at the provider's site for longer than what the user chose, or according to data protection regulation. There is separation of channels used for communication with the health care provider and for private use e.g., within the user's social network (No Isolation, 2020).

In this study, KOMP pro and KOMP will be referred to as KOMP. The recipient of health care at home will be referred to as *the user*. The health care providers that use KOMP will be referred to as health care providers, health care professionals, employees or *nurses*.

1.2 Welfare technology

In Norway, the term "welfare technology" has in many cases been replaced by "care technology" or "welfare technological solutions". The purpose for implementing welfare technology is to give people the opportunity to better manage their health and improve their lives though innovation and implementation of new technologies. The goal is to make the welfare system better equipped to meet the future challenges in our society such as

demographic and life expectancy changes (Norwegian University of Science and Technology, n.d).

Welfare technology implemented at home consists of technology which will make the elderly more self-reliant or independent. The technology is designed to detect changes both in the *user's* health status and increase communication through technology for making social contact easier (Thygesen, 2019, p. 26). The society is in constant development and it is important that healthcare services also evolve to be able to meet the challenges of tomorrow. The COVID-19 pandemic has also shown how important welfare technological solutions are when the goal is to minimize physical contact and at the same time maintain a high level of care for the patients or *users*. This pandemic crisis has taught us the importance of effective health care systems and has mobilized effort to accelerate both development and implementation of welfare technology.

The data collected in this thesis was collected preceding the COVID-19 pandemic.

1.3 Research question

This thesis focuses on the implementation process with KOMP being an example of welfare technology. More specific I want to explore if there are parts of the process that are more crucial than others to succeed when implementing in home care. To make welfare technology work in home care, all levels of the organization need to do their part. The work is not finished after procurement of suitable technology, that is when the work begins. Welfare technology is the means to accomplish something, but it is not the solution to the problem. New technology cannot create changes by itself, but it can happen in interaction between the technical side and the human side (Kleiven, 2017, pp. 86-92).

The study is exploring the experiences *nurses* in home case have with implementing KOMP and their experience with implementing other types of welfare technology. I want to generate more knowledge about the complexity of implementing new technology, the challenges, pitfalls and success factors that are encountered, and the experiences home care had when implementing KOMP. Based on this, the following research questions are formulated.

1. *How do the nurses experience the implementation of KOMP?*
2. *What experience do the nurses have with implementing welfare technology previously and how do they experience this implementation process?*

1.4 Societal context

In Norway we are currently facing a situation of higher life expectancy, better health services and "the elderly wave" due to the increase in childbirth after World War II. SSB (Statistics Norway) estimates the population over 67 years old to more than double before 2060, from 600.000 to 1,5 million (Wettergreen et al., 2019). They also estimate that the number of citizens over 80 alone will triple during this period. This kind of increase of citizens in need of hospital treatment and in need of health care in the municipalities will be an economic and practical challenge moving forward (Wettergreen et al., 2019). In addition to this, Norway has currently trouble in recruitment of new nurses to the profession. This situation has been known for some time (Hjemås et al., 2019), but the recent pandemic has made this issue more known among the public. In the published report "Arbeidsmarkedet for helsepersonell frem mot 2035" issued by SSB it is estimated that Norway will lack 28.000 nurses in 2035 (Hjemås et al., 2019).

How to utilize welfare technology is discussed on national levels and many political documents are drawn up to dictate what should be done on the municipality level (Kleiven, 2017, p. 84). The real challenges occur when these strategic plans are facing operative implementation in the municipalities. The technology does not implement itself and it is the health care employees on all levels' task to make the technology work in the already existing organizations (Kleiven, 2017, p. 84). This work includes everything from the *users* and their next of kin, to health care professionals, IT-support and suppliers. To realize the goal of making welfare technology a natural part of future health care services, the health care professionals successfully need to be able to implement and integrate it. It is often easier to visualize innovation than to actually implement it (Kleiven, 2017, p. 84).

1.5 Delimitation

Welfare technology is a broad term covering different types of technology designed for different levels of welfare and health care. In my thesis, I will be focusing on the implementation process from a *nurse's* point of view. Note that KOMP is a product that

originally was invented to reduce social isolation in the elderly population. However, this research project will not focus particular on this subject because the main goal is to look at the implementation process with KOMP and the *nurses* experience with previous implementation of technology, not social isolation particularly.

1.6 Outline

The thesis is divided into the following chapters:

Previous research: Presenting research done on KOMP and similar technology relevant for this thesis.

Theoretical foundation: A general introduction to implementation theory, as well as presenting a theory on change management.

Method: This chapter discuss data and methods. This includes description of research design, method selection, data collection, analysis and ethical assessment.

Result: Highlighting the key points from the data collected, for answering the thesis' research questions.

Discussion: The findings will be discussed in light of previous research and theory.

Conclusion: Concluding remarks and suggestions for improvement and further research.

2 Previous research

In this study the focus will be on KOMP which is an information and communication technology (ICT) and its implementation process in home care. This product line consists of systems that can be used by healthcare professionals or directly by *users* and their social network. ICT tools can be used to access a variety of technological solutions such as text messages, video calls, monitoring data and treatment at a distance, telemedicine (Lindberg et al., 2013). According to the World Health Organization (WHO) ICT includes the interaction between patients and health services or peer-to-peer communication between patients and health professionals (World Health Organization, 2005).

Lindberg et al. (2013) conducted a systematic review where the aim was to review existing studies describing the use of ICT in home care for communication between *users* and healthcare professionals. Results from these different studies show that using ICT can be cost saving but also the opposite. However, the use of ICT cannot replace a face-to-face encounter, but it can be used as a supplement to existing care. From a nursing perspective there is a lack of knowledge about how to use ICT solutions to meet the need of *users* of home care. It is important to take into consideration the role technology should play in home care. Neglecting this consideration may lead to the use of technology that does not provide the needed support for human communication (Lindberg et al.,2013).

There is no previous research on the use and implementation of KOMP pro that I could find, but Oppedal et al. (2019) published a qualitative and exploratory report on the use of KOMP as welfare technology in 2019. They collaborated with the Norwegian Cancer Society (NCS) and interviewed cancer patients living at home who used KOMP with their friends and close family. Their research showed that KOMP works best for the *users* that already have an existing social network and good family relations. Particular if the *users* also have too limited technological skills and experience to utilize other platforms like e-mail, chats, Instagram and video communication. The research also showed that the low threshold KOMP solution provide leads to more interaction and could make contact richer in the way that the *user* had more to contribute to in conversations with their loved ones. KOMP may not make new relations but it enlightened dormant relations (Oppedal et al, 2019, p. 51).

The implementation process is a key part in how successful implementation can be. Oppdal et al. (2019) found in their study that the NCS may not have reflected enough over who will have the most use for KOMP and who will not. It looked like the major focus was on the technical aspect and how user friendly KOMP is for elderly individuals. The critical success factor for KOMP as a social network tool is the individual's existing social network and this was underestimated or neglected. Further findings in the Oppedal et al. (2019) study was that the individual or *user* did not find the KOMP solution as user friendly as the implementors thought. Probably due to lack of training and support. Some of the informants in the study even said that they received KOMP in the mail and that it was troublesome to connect it to internet and get it working. The user manual was not easy to follow and besides it referred to more information available online at the internet. Thus, underestimating that huge barrier for searching online by this elderly targeted *user* department due to limited technological skills (Oppdal et al, 2019, pp. 11-29). One of the informants with implementation responsibilities in NCS stated that it was hard to find time to locate potential *users* and that their heavy workload was an obstacle (Oppdal et al, 2019, p. 47).

Nilsen et al. (2016) has done a longitudinal case study where they explore the resistance to implementation of welfare technology in municipal health care services. The results show that various forms of resistant behaviour emerged, from scepticism to the usefulness of the technology and the reliability. The resistance was related to technological instability, feelings of uncertainty and concerns for the quality of care. The resistance was found on all levels of the organization (Nilsen et al, 2016, pp. 5-9). Health care providers thought of the technology as threatening. It challenges their sense of professionality and competence and a fear of not coping with the technology. Organizational issues emerged concerning communication across levels, units and department of professionals. Not all levels were involved in the implementation process from the beginning, which caused problems later. This made it hard to prepare for unexpected issues that might occur with the technology (Nilsen et al, 2016, pp. 5-9). Nilsen et al (2016) concludes their study with the fact that resistance appear to slow down the implementation of technology in a healthcare setting, especially resistance to participate in collaborative processes (Nilsen et al, 2016, p. 12).

Remo and Aarø (2015) was focusing on the implementation process when writing a master thesis about the leader's role and the challenges with implementing welfare technology in the municipal health services. In their study they discovered that the organizations in the municipality do not promote innovation. In the municipalities in their study the decisions were made *one* management level higher up and the actual employees conducting the implementation did not feel included in the beginning of the process. The study also showed that there was not enough collaboration between the departments and not sufficient training in the technology for the implementors. For successful implementation of new technology, there need to be good training, piloting the technology and consistency. The study concluded with the remarks that to succeed with implementation of welfare technology it is essential to have leaders that can motivate the employees and be able to receive feedback. And furthermore, the leaders must follow through the entire implementation process to avoid a setback to the same routine as before the implementation. A leader needs to dedicate time and resources to the implementation process for achieving success (Remo and Aarø, 2015).

These findings are also the conclusion in the research conducted by Agderforskning. They published a report in 2014 were they explored what characterizes good innovation practice in the study of three municipalities. They interviewed two and observed how the third one conducted their innovation practice. The research showed that in all the municipalities, the management defined the needs and conducted the delimitations. The municipality with most success, was also the only one who had broad involvement in the implementation process from all levels of the organization. They used sufficient time to implement an innovation culture that was well rooted in both the top management and politically. This heavily involvement across levels was lacking in the other two municipalities (Jerntoft et al., 2014).

Beyond this limited collection of studies, there is limited research on the implementation of KOMP and ICT technology in home care. I did not include studies done at nursing homes because that is a very different way of implementing than in home care. Also, the use of the technology is substantially different. With this study my aim is to contribute with more knowledge on this topic. KOMP is a relatively new solution and therefore, there is a gap in the research that needs to be filled.

Several of the studies point to lack of both rooting throughout the whole organization and some scepticism from the health care professionals regarding new technology. KOMP entails extra work for the health care professionals and the leaders. However, the process would be easier if they followed some defined steps in the implementation process. With my research I will try to contribute with information about the challenges of implementing KOMP. Furthermore, I will also look at the experience the *nurses* have from previous implementation of welfare technology in their district.

3 Theoretical foundation

3.1 Implementation theory

I have chosen this theory as I want to look at how the implementation of new technology in an organization will affect the result. The reason for using this theory is because it will be an important factor in understanding how the process of implementing something new was executed, who decided and what was decided (Offerdal, 2014). Have the implementors been allowed to participate in the decision making or is it all controlled from the top?

What happens in public sector in the time span from a political decision is made until it is implemented in the organization? Offerdal addresses the importance of studying the different levels of local implementors. In order to determine whether the implementation of a political decision has failed or succeeded, one must look at the organizational topology and structure. In particular one must look at how the organizational cultural environment effects on a team (Offerdal, 2014).

What is the motivation of implementing the policy and what is the actual capacity of the organization to perform the operative activities for a successful implementation? How are the actual political goals rooted or adopted in the leadership in different organization levels? And do the leadership have sufficient authority and willingness to conduct the policy? And not least, the ability to adopt the changes (Offerdal, 2014)?

I believe these general questions above focus central factors in the implementation of political priorities also regarding welfare technology. Offerdals implementation theory encompasses the phase from the decision is made, the implementation activities to final implementation including the *user's* adaptation. There are two general approaches for implementation of public policy: Bottom-up and top-down (Offerdal, 2014).

Bottom-up, or user-driven, is when there normally is no or minimal correspondence between what is determined from above and what is focused and implemented further down in the organization. Local focus will often adapt better to local conditions, and this does not necessarily mean that the result is worse (Offerdal, 2014). The employees further out in the administration are normally in closer collaboration with other participants. Valuable informal

structures are created, and networks are built. The leader plays a servant role which is supposed to lead to better adaptation to local conditions. Within this model, it can be argued that in order to have a successful implementation process, the targeted department and those who provide the services must be more involved in how the implementation of the political guidelines are to be carried out (Offerdal, 2014). In order to achieve successful implementation, it is believed dependence on skills at the local level for adopting the overall policy to the actual local conditions (Offerdal, 2014).

The top-down, or in our setting political driven, is primarily based on what is decided centrally for local operationalization closer to the users. Goals and outcomes are expected to match, and it is the employees out in the operative units who implement (Offerdal, 2014). Important elements in this model are rules, injunctions and control. Political goals must be clear and concise and there must be as few participants as possible. The implementation responsibility must lie with the operational staff which is supposed to comply with the goals that have been set (Offerdal, 2014).

I must express, it is exciting to see how this works in some of the local health care units, or districts in Oslo. Important too, I think, is to what extent the health care providers experience whether implementation was decided from above in advance or whether they believe that they were involved in the process from the beginning.

Another important element in the implementation theory is the street-level bureaucrats, it is the people who work in intermediate positions between politicians and the population (Offerdal, 2014). In the health care sector, we can characterize both *nurses*, health care professionals, physiotherapists and occupational therapists, social workers and assistants as street-level bureaucrats. They often experience being squeezed or pushed between what is expected from above and expectations or requirements from the users. The street-level bureaucrats are expected to fulfil the public's interests and realize societal values. They become in a way the politicians' extended arm to implement their political goals. It is the street-level bureaucrats who are the link between decided public policy and the public. Since they work directly with people, in our context *the users*, they are supposed to implement changes in organizing the services, they need trust from service recipient (Vabø, 2014).

In this thesis, the street-level bureaucrats are *the nurses*, and their point of view and perception will be in focus. Were they involved in the early phase of the implementation process? And to what extent were they involved in deciding which technology was chosen?

3.2 Change management theory

In my opinion, change management is an essential part of any implementation process. My experience tells me that change is an essential piece of the puzzle when an organization is implementing something new. In this thesis the focus is implementation, which is why I am eager to see if my findings support the outlines in the change management theory.

Why do some changes fail, but others succeed? To understand what change management is, one must first understand what change is. There are many different definitions, but one can say that a change occurs if a change in the formal structure is observed from one time to another. It is critical to understand why it is necessary to have an active leadership role throughout change management in an organization (Sritharan, 2019).

3.3 ADKAR model

Jeffery M. Hiatt (2006) has developed a model called the ADKAR model. It stands for, **A**wareness, **d**esire, **k**nowledge, **a**bility and **r**einforcement. The model is a useful tool for successfully exercising change management in an organization or in private life (Hiatt, 2006).

Awareness represents a person's understanding of what the change is, why the change is carried out and the risk that is present if one does not change. This point also includes the information about what are internal and external drivers and what is the reason why change is needed and what will be the benefit of the change (Hiatt, 2006).

Desire represents the willingness to support and drive change through. This is what each individual in an organization sees as their own reason or motivation for their engagement to carry out the change (Hiatt, 2006).

Knowledge represents the information and training necessary to perform the change. It also includes the knowledge of processes, tools, systems, skills, job roles and techniques which are needed to implement the change (Hiatt, 2006).

Ability represents the execution of the change ability in turning knowledge into action. The ability to achieve change comes when the organization has reached the stage where they have the skills to implement the change that is expected (Hiatt, 2006).

Reinforcement represents the internal and external factors needed to sustain change. External reinforcement can be recognition, celebration or rewards given after successful implementation of the change. Internal reinforcements can be the individual's inner drive and satisfaction in achieving the goal (Hiatt, 2006).

The ADKAR model follows the natural order of how a person experiences change. Desire cannot come prior to awareness since the awareness of the need for change stimulates our desire for change. Knowledge cannot come prior to desire because we do not normally seek knowledge of something we do not desire or want. Ability cannot come prior to knowledge because we cannot implement something that we do not have knowledge of. Reinforcements cannot come before ability because we can only reward and acknowledge what we have achieved (Hiatt, 2006).

4 Methodology

I have chosen a qualitative approach to map out the challenges with implementing KOMP and the implementation process. Qualitative studies have the advantage that they can explore why people behave as they do and how they experience and perceive different situations. In this thesis, my aim is to identify how the *nurses* experience the implementation of KOMP, which I presume also is applicable to previous technology implementation in their workplace. Were the *nurses* involved in the entire process? Do they understand why the technology is being implemented? Qualitative research tends to look at social life as a set of processes (Bryman, 2016, pp. 470-472).

4.1 Method and recruitment

At the start of the research process, I wanted both *users* and the healthcare professionals to be the informants. Initially the focus of the thesis was whether KOMP improved the communication between *the user* and home care, or not. Further to explore what the *users* thought of more welfare technology in home care. This was an interesting angle, nonetheless

during this study I ended up with finding interest in the implementation process and the research questions were changed accordingly.

The data in this thesis is collected in one district in Oslo municipality. I reached out to the section chief of home care in this particular district and asked if they would be interested in being part of my study. She approved my request and arranged for home care to implemented four KOMP in the home of four *users* who lived alone. The inclusion criteria were to find suitable users already recipients of services from home care, being over 67 years old and having limited to no digital skills.

Information was gathered through interviews conducted with *nurses* in home care, my field notes and also my own experience as an operative *nurse* in the home care service.

It was difficult to determine the number of informants in advance due to the time constraint of the thesis. However. I concluded that within this one district, four informants would be sufficient for a satisfactory result and would provide the study as good an information saturation as required (Bryman, 2016). In addition to conducting one initial larger interview with each of the informants, small interviews were conducted throughout the course of the study. The *nurses* have different previous experiences with working in health care prior to their work in home care. They have characteristics and qualifications which separate them from each other. The four nurses are resource persons in welfare technology in their respective department in the home care service in their district. They are represented with differences in gender, ethnicity and they have all worked as *nurses* for different duration of time. Due to their responsibilities as resource persons and experience as *nurses*, they have had active roles in the implementation of new technology in the past. This has given them experiences that can make them suitable for answering the research questions.

In this district, home care is divided into three department and all three department have their own department manager. KOMP was implemented in two different departments in the same district. Three of the informants worked in these two departments. The fourth informant worked in a department that was not involved in implementing KOMP. The two departments implemented two KOMP each.

The district studied in this project is one of the districts in Oslo that has not reached far in implementing new technology compared to many other districts. I found this intriguing and wanted to reveal and highlight in my research some factors that might explain this low level of technological implementation. What separates this district from the ones that have come further with implementing welfare technology? This is the main reason why I chose to reach out to this district and why I wanted to interview their *nurses*. In my opinion, it is easier to get a straight answer from the operative service providers, *the nurses*, than management. It is also important to mention that I had a 36% position as a nurse in this district when the research was conducted. I worked in the department that was not involved in implementing KOMP. This was a conscious choice hoping my position would not influence the data collection. I will make more reflections on this issue in the sub-chapter addressing ethical considerations.

4.2 Interview design

In addition to the interviews conducted, field notes were written. Field notes should be detailed summaries of events and behaviour and the researcher's initial reflection to what is observed (Bryman, 2016, p. 440). In more detail, the notes were methodological structured which means that I had a separate file of notes for observations concerning methodological decisions, experiences in the field and 'barriers and breakthroughs' that occurred (Adler and Adler, 2009, cited in Bryman, 2016, p. 444). Field notes were written during training, when I observed *the nurses* in the workplace, when implementing at the *user's* house and early talks with department managers. Field notes were not written during the interviews since they were recorded with an audio-recorder.

Interviews are probably the most widely used method in qualitative research due to the flexibility it provides (Bryman, 2016, p. 466). Semi-structured individual interview was used as the interview design in this research with the purpose of getting comprehensive and rich information from *the nurses.* Semi-structured interviews can be adapted along the way and it gives the opportunity to conduct the interview with flexibility. It gives the opportunity to change the order of the questions and ask follow-up questions depending on the information revealed. Even though it makes the interview more flexible, semi-structured interview also

ensures that the interviews with the different respondents follow the same structure and ensure similarity in how the questions are asked (Bryman, 2016, pp. 468-472).

4.3 Conducting the interviews

Four semi-structured interviews were conducted over a time period of two weeks and they were conducted after the implementation process with KOMP was finished, which lasted for two months. The field notes and my field work are given equal importance as the interviews. Three of the interviews were done at the informant's place of work and one informant was interviewed at her home. To allow the informants to choose the place of the interview presumably made them feel more relaxed since they then were in a familiar setting. Each interview took approximately an hour which gave room for many follow-up questions. My observation was that the informants did not feel any pressure or stress to complete all the questions in a hurry.

An interview guide (Appendix 1) was prepared to support the interview and to ensure appropriate response in accordance with the research. The order and formulation of the questions was just a guide as the informant's answers could give the interview a new direction. I designed the questions in the interview guide to be as open as possible. The formulation of the questions should not be so specific that alternative topics that might arise during the interview were excluded (Bryman, 2016, p. 470). Each interview began with small talk and some simple initial questions about the informant to establish contact and a trusting relationship. Both the informants and I are nurses which made it easier to use language that is common and relevant to *nurses* and it also revealed that I am familiar with the way they work. I find support in the research theory that this setting is considered a strength when conducting the interviews (Bryman, 2016, p. 471). At the end of each interview the informants were asked if they had any comments or questions. This gave them an opportunity to debrief or to give additional information that could be useful for my study. All interviews were conducted with an audio-recorder. This is a convenient method to make sure that everything said in the interview will be included in my study. An additional benefit by recording is to document not only what they said, but how they pronounced it. Also, this gave me the opportunity to fully focus on what the informants said and not split my focus between listening and taking notes. Besides, it gave the interview better flow (Bryman, 2016, pp. 477-479). Later, I transcribed

word by word, were modes of expression, including pauses and emotional expressions were written down.

4.4 Ethics

It is required to report this study to the Norwegian Centre for Research Data (NSD). NSD helps researchers and students with ethical questions related to data collection and analysis. When preparing for my empirical data collection I made an abstract and described the overall goal of the project including submitting consent forms and interview guide and applied for approval (Appendix 2).

The informants were asked to participate in person and they then received information about the study and a consent form on paper (Appendix 3). They were informed both in the consent form and also right before the interview of their right to withdraw from the study at any time without justification, even after the interview was conducted. Confidentiality and anonymity must be ensured in the research project. Personal identities in the transcripts that easily can be recognized, will therefore be masked (Sanjari et al., 2014). To avoid identification, all the informants were given codenames. Their name is not found on the transcript or in the research. Each interview was recorded with an audio recorder with the informants' consent. In order to protect the informants' identity and privacy, the voice recordings were transferred to a password-protected computer and deleted from the recorder. Both audio recording and transcription were stored safely and will be deleted at the end of the project.

There was a lot of ethical considerations that had to be evaluated in regard to my employment in this district. The main consideration was the decision that KOMP was not implemented in the department in which I worked. This consideration was done to ensure the data to be authentic. I did not want to risk that the employees acted different or was less honest in their opinions because they know me personally. Also, I had some concern that my knowledge about the *users* could influence the decision making and mapping of which *users* should try KOMP.

In regard to the *user's* privacy in such a project, my position already as a *nurse* in the district made it easier to handle the formalities. I was an employee trusted with sensitive data

governed by Norwegian law. They already knew that if I overheard information about *users* or if I learned any sensitive information, it did not breach the employer's responsibility of confidentiality. However, it meant that I had to be extremely careful when writing field notes and transcribing the interviews.

I had to consider the dilemmas that might occur when performing research in my place of work and in my profession. To avoid influence by your own experiences and understanding can be challenging. It is also important to be aware of the possibility of not seeing the whole picture when being so familiar with the place or subject of the study. However, it is also the risk of under-communicating knowledge and insights that might be relevant in order to not be true to the data material. I value my experiences as a *nurse* and consider this a as a good platform for conducting fieldwork close to my own profession. In my opinion, I managed to find the balance of not under-communication and also staying true to a professional research process. It was important for me to consciously evaluate these dilemmas during the study. This is why I decided to use my experiences and reflections were this is relevant in order to give the result more depth.

Conclusively, I think my employment in the district gave me better data. Subsequently, I know how the district work and *nurses* work, so I was able to ask the right questions, thus making it easier to connect to the informants as my peers.

4.5 Analytical strategy

There are a lot of different approaches to qualitative analysis. Thematic analysis is one and my assessment is that the method is suitable for my thesis. Thematic analysis is an approach that is commonly used by qualitative researchers. On the other hand, it is so basic that it can often be ignored or gets downplayed compared to other more known and more advanced processes. The name is an indicator of its characteristics, so thematic analysis is about looking for the themes in the data collection. A theme in this context is a consortium of data with important common features (Johannessen et al., 2018, pp. 278-279). Put together, the themes are supposed to answer the research questions. When performing a thematic analysis, the research questions can change a little along the way. When one first begins to analyse, it may turn out that the data is more suitable for answering some questions than others. I kept this

important feature in mind during the analysis. Hopefully the analysis benefited by this, as openness of what the data tells might direct the research to better and sharper results (Johannessen et al., 2018, p. 280).

My starting point in the analyse process was the four-step process described by Johannessen et al. (2018).

Step 1: Prepare: This is the first step in a thematic analysis where one gets to know the data. I read through all the interviews and the field notes and wrote small notes as I saw potential themes emerge. I had already made the research questions but as I was reading, I was open to making changes if the data potentially led me down a different path.

Step 2: Coding: After reading through all the data, the coding phase begins. Coding is about highlighting and put into words important points that one finds in our data. This is done for the purpose of getting an overview of the data, generate new insights and facilitate the next step which is categorization. I started coding data that I found relevant. I first tried to use NVino12 which is a coding-program, but the program often shut down and ended up being more work than help. I then decided an alternative method and printed out all the data and used a marker combined with taking notes. My focus was on what factors influences the implementation process of KOMP and also the informants experience with the implementation process with other types of welfare technology.

Step 3: Categorization: After a thorough coding, the categorization begins. While coding, the focus was on the detail in the data. However, when categorizing, the focus was to reveal a bigger picture and how the data could be put together. When categorizing, I made different documents and copy/pasted the codes together into themes to more easily see the connections. I ended up with these three topics of themes: 1) Management, 2) Motivating colleagues and 3) Experiences with implementing and using KOMP/technology.

Step 4: Reporting: The last step in the thematic analysis process is reporting the result. This step showed that some of the topics gave limited relevant data or information, so a lot of

changes were made before deciding on the three themes mentioned above. The reduction of themes was made in order to make the finished result as strong as possible.

In the next chapter I will present my empirical findings based on the interviews, field notes and field work.

5   Results

In the following chapter, I will present the experiences with implementing KOMP according to my study, and the experiences with previous implementation of welfare technology. The first sub-chapter will cover implementing KOMP. The experience with previous implementation will be in sub-chapter two. The two department within the home care district which implemented KOMP are in this study called *department 1* and *department 2* in order to ensure anonymity. The informants will be addressed as *nurse 1-4*, were *nurse 1* works in *department 1* and *nurse 2* and *3* work in *department 2*. *Nurse 4* work in *department 3* which is not mentioned specifically in the result since I was employed in this department. The pronounce "she" will consistently be used about the informants disregarding their actual gender. The reason for this is that it is not many men working in this district so it will be hard to guarantee anonymity for the male informant(s) if their actual gender is transparent. I believe that this choice will not compromise the result of this study.

5.1 Implementing KOMP

5.1.1 Management

The district communicated positivity towards implementing KOMP from the beginning. The department managers in home care and the welfare technology coordinator had heard about KOMP earlier. They received relevant information about the project, information about the technology and examples of how this could benefit both *the users* and home care employees. They sounded excited by the possibilities the technology possessed.

Nurse 1 is very happy with the support from her *department* manager., and she was given time and opportunity to present KOMP to colleagues.

> *My manager has been very positive and tried to motivate and facilitate time, so I will have the opportunity to present KOMP to my colleagues (…) My boss is very interested in welfare technology.* Nurse 1

On the other hand, in *department 2* there was a lot of back and forth in the beginning of the implementation process of KOMP in regard to information that the *nurses* in *department 2*

received from their manager. The information they received confused them to the extent that they thought that they did not have any suitable users for KOMP. They were under the assumption that it was a requirement that KOMP had to replace physical visits and they did not have any users that wanted this. The impression they had did not comply with the information their *department* manager had received when being informed about the project and the criteria's. It indicated that the manager for *department 2* might not be as invested in the project than what she first let me to believe. *Nurse 3* explains it like this:

> *It has been a lot of misleading information from our department manager in advance. Information about how KOMP was supposed to work, what it was and benefits for the user. I learned more about it when I saw a video on YouTube, an advertising video. That's when I got it. The information I received from my department manager got me wondering why we should bother starting using KOMP.*

Furthermore, when I contacted *nurse 2* to ask how the implementation was proceeding, she explained that she did not know because it was her colleague *nurse 3* who was in charge of the implementation. When *nurse 3* was contacted, she threw the ball back to *nurse 2.*

> *It was a lot of back and forth regarding who had the responsibility for it [the implementation]. We were both pretty busy at the time with other time-consuming responsibilities. Nurse 2*

Nurses in home care have many time-consuming administrative responsibilities in their job description on top of their responsibilities in the field. In my experience, it is not uncommon that *department* managers often do not understand the extent of that responsibility and therefore, they give *the nurses* new tasks without asking if they actually have the time to complete the tasks given to them. The informants agreed that they needed more time to work on the implementation than was made available to them. *Nurse 1* expressed that implementing a completely new product is almost a full-time job. It felt like a massive responsibility on top of all the other administrative obligations. They all asked for more time, but often something more important and pressing had to be prioritized. Even though the *department* manager in *department 1* gave support to the implementation of KOMP, *nurse 1* did not feel like this gave her more time to work on the implementation. *Nurse 2* emphasised that because the

information and commitment from the department managers were lacking, they were just asked to begin the implementation without getting sufficient information.

> *(…) We were sort of instructed that we needed to start immediately. Just find two candidates that we think it can work for and then full speed from day one. Nurse 2*

5.1.2 Motivating colleagues

Scepticism amongst the other employees and colleagues were an issue all of the informants revealed. Several of their colleagues were in general sceptical to all types of new technology. They expressed that it was a challenge to implement because they have received such limited support from colleagues. *Nurse 1* said that her colleagues are old fashioned and sceptical of almost all new things, especially since they do not have that much welfare technology in the department from before.

> *(…) They don't seem interested, so the major challenge lies in motivating my colleagues. If my colleagues had been motivated to use KOMP, then we could have found more users. Nurse 1*

All full-time employees in the district have primary *users* so the informants do not know every *user* in the district well. The *nurses* expressed that they needed to involve and motivate other employees with insight into other *users* in order to find good candidates for KOMP. It is essential for success that all field employees know what products is capable for and evaluate possibilities during their workday.

> *(…) I don't know if it is because they have been working in home care for so long or maybe they do not see the potential in new solutions. Could be they feel too busy to learn something new (…) Nurse 3*

As mentioned earlier, *nurses* in home care have a lot of administrative responsibilities in home care. They often feel an obligation to trying to be updated on new research development in their field. In some cases, part-time employees and health professionals do not share the same responsibilities and therefore, some of them care less about learning something new and are focusing on what they already know.

All informants have promoted KOMP to their colleagues when they have been gathered at the office and they have asked for help from colleagues to assist them in finding suitable users for KOMP. One colleague comes up with a couple of names, but then someone else shoots the suggestion down saying that *the user* cannot have KOMP. When the informants asked why, they rarely have a good reason. When employees are negative to suggestions without having an apparent good reason, it suggests that they have decided that they do not like this technology. In my experience working in home care, it is very difficult to change the opinions of colleagues with that mindset. Often, the reason is a lack of understanding due to a language or terminology barrier. Or older employees that has worked so long in home care that they do not like to change the way things have always been.

They all express that their younger colleagues and nursing students show far more engagement to propose *user* candidates than the older full-time employees who often shot proposals down.

It became a problem that employees were not using KOMP even though it was implemented. *Nurse 1* decided to have a movie screening for the employees in *department 1* to show them the videos' made about KOMP. She expressed that the screening was a success and it looked like the employees understood what KOMP could do. But there still are some employees that are worried about this type of technology. They feel like it takes away the human contact and since a lot of the *users* are lonely the effect of KOMP could be less contact and reduce social isolation.

Figure 2 Picture from KOMP Movie screening

> *We talked a lot about KOMP and showed videos to demonstrate to our colleagues what KOMP is. When we still had one KOMP at the office I showed colleagues how it worked, showed the functions including the video chat so that colleagues could see and hopefully understand.* Nurse 1

5.1.3 Experiences with implementing and using KOMP

The implementation was delayed multiple times due to issues with finding candidates that were screened to be suited for the technology. All the informants expressed that they struggled with finding suitable *users* within the criteria's that were presented and they thought that KOMP may work best for family and friends only. *Nurse 1* said that it was important to her that she did not chose a user just because of his or her willingness but selected the ones KOMP actually could be useful for.

> *We have struggled to find the suitable user department in home care. I see immediately that it is a very good product for communicating with their family and next of kin and thus can prevent loneliness and social isolation and help them stay in touch with family. From the position of home care, I see the possibilities, but it has been hard finding the right candidates. Nurse 1*

One of the issues *Nurse 1* found hard was finding *users* where they potentially could replace some physical visits with a video call using KOMP. In home care we always have to consider the benefit for the *user*, but also for the service. According to *nurse 1* the goal initially, particular from the management, will be to replace physical visits since they want to relieve the staff and lowering the costs. This focus is always there, so in order to replace physical visits the *user* needs to physically active. *Nurse 3* explained that when they visit a *user*, focus is not just to see their face, but we are supposed to observe the whole individual with surroundings. Is the apartment looking clean, can we observe signs that she has eaten in the kitchen, has she put on clean clothes? All this observation is necessary, and they cannot be observed over a video call.

> *(…) It is easier to have an issue or problem with a user and then find the technology to help them with that issue. Rather than the other way around.* Nurse 3

The informants were positive to most features in KOMP. *Nurse 2* and *3* really liked the calendar function where they could send messages or photos to remind the *user* to eat dinner or remind them of a doctor's appointment. *Nurse 1* really liked the opportunity for making video calls since this feature creates social contact. The rest, she felt are existing

functionalities in other products. Like the calendar function, which most of the users already have. There is no benefit for the *user* for replacing existing functionalities.

> *Some of the features were sort of ignored, because the user already had that function in a different capacity. Nurse 1*

When implementing KOMP in the *user's* home, the informants faced some challenges. KOMP is favourably supposed to be placed close to where the *user* spends most of their day. The elderly population often have their favourite spot and usually it is in front of the TV. One of the struggles when implementing was finding a socket close to where the user spends their day without having to use an extension cord. The users were surprised that they could see the image so clearly. In particular, one *user*, who had bad eyesight. There were some concerns amongst the *users* that it would be hard to learn how to use it since they did not know much about technology. However, just one button felt manageable. To show one *user* how KOMP worked, *nurse 2* took a cell phone camera photo of a photo she had of the *user's* great granddaughter and sent it to KOMP she lit up and got overwhelmed over how beautiful it was to see the picture in a larger format.

After a short time, the informants got feedback from all the *users* that they found the screen distracting. The colour behind the clock function was distracting for one *user*, even though the nurse changed the settings and made the background black. Another *user* did not mention the colour of the background as distracting. She expressed that she felt like the screen was rather big, and the display was quite light intensive, particular when showing pictures on it. When she watched TV or wanted to relax, it became to many stimuli when they did not use KOMP. We have to be aware of this and it probably is the main reason why the *users* did not like having the KOMP at home. This showstopper must be solved by the supplier since *the users* who actively used it for video calls or receiving photos, really liked it. I have received very positive feedback on that usage, but since the screen had to be on all day it became too much. There should be a standby or sleep functionality.

> *She turned KOMP off all the time so even though she was a good candidate in theory, it did not work practically. I also think that she would have liked it better if the family*

also used it. But sadly, she did not have much contact with her family so there was hardly any activity on the KOMP apart from home care. Nurse 3

All the informants agree that there are many *users* in the district that can benefit from KOMP, but if they should do the implementation over again, they would focus more on informing friends and family about the possibilities both for the user and the social network. The lesson is to choose *users* that have a bigger social network. For instance, *nurse 3* explained that one of the *users* who tried KOMP had family that lived right next door, so the family and *user* did not see the benefit for them.

> *I think there are users in our district that can use KOMP, but we have maybe not been able to find them in such short time. And in particular we should have time to find users were friends and family could really benefit from KOMP in addition to the user.* Nurse 3

Another finding was that it is always hard to implement new technology for *users* that have had home care for many years. All the nurses felt like it would be easier to implement KOMP when someone first start out with services from home care. *Users* that have had services for a long time are used to the safety of knowing that home care does regular visits. If one tries to reduce the visiting time or services, both the family and *user* are likely to make heavy protests.

> *It will be easier with a new user to assess their level of need and see that they are candidates of benefiting the system. But for those who have had home care for years it is hard to replace us with KOMP. And implementing new technology in general.* Nurse 1

When implementing new welfare technology, it is important to remember that it is just as important to give the proper information to *the users* and their next of kin, as it is to give the right information to employees. I have multiple examples, not just with technology, where home care employees have given a message or informed the *user* about a change in the service they are provided, where the information is not tailored for the *user*. Then it is easy for the *user* to misunderstand or get confused and think that they do not get the help they are used

to from home care. This is why it is important that the employee giving the information has the right knowledge and the right approach. Nurse 2 explained it like this:

(...) The users struggled to understand or remember why KOMP was being used and they felt like home care was preparing to cut down on physical visits. Next of kin called the office wondering what information the user had received (...)

5.2 Implementation process in the organization

My informants are research persons for implementing new technology in their home care district. I think it will be valuable to explore their former experience with implementing welfare technology which might be applicable for the KOMP implementation

5.2.1 Management

I asked the informants about what role the different sections of management in the district holds districts' top management included. Top management in particular is distant and the *nurses* feel like there is a "us" and "them" mentality between the top management and the employees in home care. The top management almost never visit the offices of home care just to show their face and make the employees feel like they are part of the same organization. In a large organization like this district, the feeling of being a part of a community is important in order to make the services better. When asked, none of the informants knew what the top managements' role in the implementation process were.

The informants express that they need to feel as if they are a part of the decision-making processes concerning matters involving them as service providers. They need to feel included in order to really feel an ownership to the project and the process. It is hard for the informants, as resource persons, to motivate their colleagues to engage themselves in an implementation project when they lack essential information. In an implementation process, the employees in home care are the ones that map *the users* and implement the technology. However, they do not feel included in the process prior to implementation.

Nurse 2 believes that the management in the district may not quite know what it takes to achieve successful implementation in home care. They may not have a health professional background or have reduced insight in how the home care service works in practice. The general assumption is that the top-management in the district is too concerned with economy. They only look at quantitative profit realizations[1] and not the quality of care which the home care employees are mostly concerned with. Quantitative profit realization is linked to economy and streamlining the home care service, while qualitative is more focused on better and safer services for *the users* and promoting self-help. Profit realization is a valuable part of the implementation process. However, in my experience, this is not something that is communicated to the employees in home care. Thus, making it hard to find common goals that the whole organization agree on. The informants emphasizes that they do not know how the information flow is further up on the management level, so they do not know who makes the decisions about which technology to implement or how the decision-making process in general is. *Nurse 2* explains it like this:

> *I don't know what kind of information my department manager gets from her supervisor about new technology and when she is informed, but I feel like I always get the information a little too late.*

The *department* managers are the closest supervisors to the employees in home care, including the informants. They are the ones that are in charge of realizing the implementation process in home care. The *department* managers are very positive towards welfare technology and some of them makes an effort to set aside time for the resource persons to work with welfare technology.

> *My manager is very committed, and it makes it easier for me to ask for extra time in the office to work with welfare technology, but often someone calls in reporting sick so that I have to visit users instead (…) So it does not always help that my manager is engaged when everyday work is so busy. Nurse 1*

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[1] Profit realization = Gevinstrealisering på norsk. Ofte brukt som verktøy for å måle kvalitative og kvantitative gevinster ved innføring av velferdsteknologi.

The informants express that their *department* managers are excited about welfare technology. However, this is not necessarily visible in their actions. In my fieldwork, I have encountered many examples of how a department manager might have good intentions with their commitment to technology. Using grand words to describe how wonderful a certain product is and how useful it will be in home care. For instance, we were implementing a product and the department manager wanted to implement this with as many users as possible and as quicky as possible even though we were in the piloting phase of the implementation process. I asked how the employees should map the users and what kind of features they should use. The manager then said that she did not really know the details about the technology because she was not the one who was supposed to implement it. The informants have been told by their *department* managers that now we will start with this product, but they cannot allocate sufficient time to actually get knowledge of what the product is and which *users* it may be relevant for.

> *Last time we had a project, my manager said this will be implemented, and training of employees starts Wednesday. Neither me nor my colleagues having heard anything about this in advance. Nurse 4*

In a previous big welfare technology project, there was a project manager employed by the district in the position of welfare technology coordinator. All major welfare technology projects in Oslo are supervised by the Health Agency (HEL) so she worked as the representative from the district since this was a project that all the districts in Oslo municipality was part of. The resource persons thought it was very productive to have someone to supervise the project and that they had someone to lean on during the implementation process. However, her office was on a different floor than the offices of home care, in the district's administrative building. Because of this, she was often unavailable when home care employees had questions or needed help with something.

It is also mentioned by all the informants that the project manager had a meeting with all the resource persons once a month so that they all could be updated of the status during the project. When the project after a certain time span upscaled from pilot to operation, the project manager was moved to other projects. Then they had no dedicated full-time employee

who only worked with welfare technology. All the informants say that this damaged the work with welfare technology, and the resource persons even lost their joint meetings where they could exchange experiences.

> *(…) When the welfare technology project manager was moved to a different project, we should have continued with the meetings, but it is hard to keep such activity running when no one is in charge. Nurse 3*

5.2.2 Motivating employees

In the previous chapter concerning the implementation of KOMP, the informants expressed that they found it challenging to motivate other colleagues for implementing new technology. This has also been an issue in previous implementing.

Several of the employees in home care do not understand how the technology can help *the users* when the existing services provided works so well. This issue is not new, resistance towards something new and different is normal. When home care moved from having their daily patient list on paper to being digital, it was a lot of scepticism and protests from many employees. Some years later, the same employees cannot imagine going back to the way is used to be.

It is frustrating when implementing new technology becomes more difficult because other employees refuse to change their mindset. If the resource persons (e.g., the informants) had been more involved in the implementation process, they could better present the technology to their colleagues at an earlier stage. That way both themselves and their colleagues would be more prepared prior to the implementation.

> *We have to find the right way to present the technology to our colleagues. They often say no to a demonstration, but they often do not know what they actually say no to. Nurse 2*

When new technology is first implemented in the district, the company behind the product provide training in using the product. After the initial implementation the local resource

persons are responsible for providing training to their colleagues and disclose who needs more training. Besides, there are many part-time employees who may not be at work when joint training is provided. Providing adequate training is essential to ensure that the technology is used correctly. Even though training has been provided, some employees still use the technology incorrectly.

The district has a *user* story that they often use to emphasize the importance of using technology in the correct way. Some years ago, a *user* who received services from home care was found at home by a home care employee, alive, but in bad shape after falling on the bathroom floor three days earlier. She had an electronic medicine dispenser which sends an alarm to home care when medicine is not removed from the dispenser at the correct time. The alarms were ignored for almost three days because the employee in charge did not understand the importance or did not know how to check the alarms.

This is not the norm, but still, it shows the consequence lack in training can lead to. The district improved the routines immensely after the incident which showed they had learned a valuable lesson. *Nurse 3* explains it like this:

> *I am responsible for the training in my district, and we are trying to give it focus, but then it tends to drown in all other prioritized tasks. We try and do our best to conduct training in the correct manner even without enough time (…) But it is difficult to achieve continuous training.*

5.2.3 Experiences with implementing and using technology other than KOMP
The informants say that they participate actively in the implementation when technology is first placed with the *users*. The resource persons are the ones who primarily are active in finding *users* who they think the product is well suited for and also be able to use it. All employees in home care should know the steps of how to map and assess a *user* in order to evaluate if they could benefit from welfare technology.

We first find out which users need the product and ask if they want to try and explain how it works and why this will help them. After that, we take the product out to the user and then show how it works ... Nurse 1

The resource persons wish that they were part of the implementation during the entire process. They have the initial direct *user* contact and know the *users* and their needs. They would like to have more influence on how the district carry out implementations. There is too much focus on finding the technology and then finding which *users* can use it. This should be turned around to finding which problem the *user* has and then find the technology that potentially can solve the problem.

Employees want to try out a new product, but then it stops, and we do not know who to turn to. When we ask the management, we are rejected by: "maybe in a while". Nurse 3

Once a project regarding implementation of technology change from pilot to operation, it can be hard to keep the momentum going. In previous projects, the district has not been able to implement large quantities of a product. There are several reasons for this.

First of all, the top management have designed strict exclusion and inclusion criteria in order to ensure that there are some economic benefits that can be measured. This is expected from top management and it easily understandable, but the informants feel like this is making it harder for them to implement because they have to exclude many *users* who they think the technology would benefit. Since the technology does not reduce services or lessen the workload for home care, *the user* is not suited for this technology according to the top management.

Another reason is that home care experiences some technical difficulties with some of the technology. This in turn, makes it even more difficult to encourage employees to implement more technology. When they feel like the product is not good enough or safe enough, it makes it easier to just stop implementing. Technical difficulties also often end up with giving home

care even more work, so instead of easing the workload, the technology might give them extra work. An example of this is the electronic medicine dispensers and *nurse 2* explains that:

> *There are dispensers that are better than those we use, but they are also more expensive. It's a compromise and we have a medium good solution. Nurse 2*

The third reason for struggling to implement large quantities is that the case workers often have to little knowledge about the welfare technology that the district possesses. The case workers job is to evaluate which services the home care district shall offer to new *users* or re-evaluate existing *users*. The case workers are therefore often the first person a citizen meets after applying for services. When the case workers do not have the right tools for mapping the need for technology or the knowledge, then it becomes difficult to identify suitable *users*. Experience indicates that it is easier, and the success rate is higher when new technology is implemented from the start, so *the user* is not used to how the service is without technology. This is because it is harder to take away a service that *the user* is used to receive, but also, it is important to start the implementation as early as possible. Especially if the user is cognitively impaired. When cognitive impairment evolves, the ability to learn becomes more challenging.

6 Discussion

The purpose of this study was to find out how *the informants* experience the implementation of KOMP and their experiences with previous implementation in their organization. The study is limited to look into how the implementation process was in the three departments in one of the home care districts.

In this chapter, I will discuss the findings in light of the previous research and theory presented in chapters two and three. I do this in relation to the three main themes from the result section: *Management, motivating employees and experience with implementing and using KOMP/technology*. In addition to these, change management theory will be a separate sub-chapter. I justify this by assessing change management to be involved in all aspect of the implementation and it may preferably be discussed across all themes.

6.1 Management

Offerdal (2014) claims that in order to see whether implementation has succeeded or failed, it is important to look at the environment, and the organizational structure is important for how policy is implemented. The findings in this study show that the organizational structure does not seem to function optimally for political decisions higher up related to implementing new technology at the operative levels, the home care departments. Top management in the district is not visible and is not perceived as available by the local implementors. How the organization is structured further up seems to be not well known in the home care department. This seems to be a contributing factor as to why a successful implementation is hard to achieve. The findings in my study combined with my own experiences of political decisions regarding the implementation process by the top management were not rooted in the employees in home care. Involvement in all levels from the beginning of an implementing process is also focused in the literature conducted by Remo and Aarø (2015).

All major welfare technology projects in Oslo municipality start with the Health Agency (HEL). This follows the top-down model also when the decision centrally has local operationalization. Central in this context refers to the municipality and local to the district. In this theory, one expects goals outlined by the top management are reflected in the perception of the implementing employees at the lower operating level (Offerdal, 2014). The

implementation responsibility should reside with the people who agrees with the goals that have been set. But where does the responsibility lie? On the one hand, the responsibility lies with the top management in the district. They have committed themselves to HEL to implement a given technology, but it is not the district management that actually implements, it is the health care professionals in the home care departments. Who has the responsibility if it does not succeed?

If you look at it with different eyes, you can also say that it is the bottom-up model. If one thinks that it is the politicians and national leaders who are «up» and Oslo municipality that is «down» then this model shows that there is no correspondence between what is decided nationally and the result locally (Offerdal, 2014). Based on this way of thinking, it can be argued that in order to achieve a successful implementation process, those who provide the services must be more involved in how the implementation of the political guidelines is to be carried out (Offerdal, 2014).

According to the results of this study, the home care employees are not part of the decision-making process of which technology is implemented. This is perceived as an issue by the informants since they and their colleagues in the home care departments are executing the implementation. Top management defines the needs for what type of technology is to be implemented and they also conduct the delimitations (Jerntoft et al., 2014). This is also accurate regarding the implementation of KOMP. However, when top management was approached about conducting the study in this particular district, in one way, my involvement can be viewed as representing *the nurses* view, even though I approach them in a researcher capacity. Furthermore, the top management were not the ones that conducted the delimitations, and the home care employees were involved much earlier in the process.

I rise the question; How do the members of the top management know which type of technology is best suited for *users* of home care? The service providers are not part of the decision-making and they are the ones that know the *users* in this district. And how is the implementation strategy communicated from top management and down to the department managers? My study shows that the resource persons received information about the

implementation from their department managers late in the process and that they also sometimes are presented wrong or insufficient information.

Profit realization is an important part of any implementation process. It is an efficient way to measure how successful welfare technology is. In my experience top management focuses on both qualitative and quantitative profit realization. However, results in my study show the informants regard quantitative profit realization as most important for top management. This suggest that there is lack in communication between top management and the employees in home care. According to Remo and Aarø (2015) there should be collaboration between departments in order to successfully implement new technology. Thus, collaboration can be hard to accomplish when qualitative profit realization is most important for the health care providers. Health care providers are trained to act in *the user's* best interest and their wellbeing will always be a priority when providing health care. This can make the implementation more challenging when the health care providers have a presumed incorrect view on the priorities of top management.

The informants experience or feel like they do not get sufficient time to work actively with welfare technology and focusing on implementation of new or existing technology. They asked for more time, which is noted by the management. But it is seeming to be ignored by the department manager when, for instance, illness occurs within the staff or other increased unforeseen workload arises. This indicates the management does not have a good enough foundation and willingness to learn what it takes to successfully implement the required technology in home care.

When KOMP was supposed to be implemented, the department managers gave the resource persons wrong information and gave them too little time to properly map *the users* which ended up delaying the implementation. The resource persons expressed that implementing a new product efficiently can at times be a full-time job. From the implementors viewpoint, this can seem like a breach of trust. Both me and my informants are aware of the problem with understaffing in the home care sector, particular during the Covid-19 pandemic, but we think the management have to prioritize implementation of welfare technology higher. Low priority from the management might result in low motivation in the operative level. Employees often

look to their leaders for answers or motivation, thus giving the power to potentially change an employee's low motivation to the better. However, when a manager do not see the point of learning how a technology in used, justifying it with the fact they are not the ones implementing, then negative results can occur. According to Remo and Aarø (2015) it is essential to have leaders that can motivate employees. In order to motivate your employees, a leader needs to familiarize with the technology and learn what it takes to successfully implement. If the department managers do not understand which *users* the technology is suited for and what is needed to succeed, how can they expect their employees to understand.

According to Vabø (2014), there must be trust between the service recipient and the service provider in order to initiate new measures. The employees in home care are the ones that know the service recipient, *the user*, best and in order to present *the user* with the best possible technology, Thus, the employees need to have sufficient information about the technology they implement. If they were part of the implementation process from the beginning, they could probably influence which technology is best suited for their *users* and what delimitations need to be in place in order to provide *the users* with the technology suiting their needs.

The result in this study shows that all the departments had the same challenges when implementing disregarding how involved their department manager were. This can indicate that the problems within management involvement lies higher up than the local leaders. A successful implementation is dependent also by involvement from the top management. This view is supported by the study Jernhoft et al. (2014) conducted were findings showed that the municipality with the most successful implementation was the one who had conducted broad involvement in the implementation process from all levels in the organization (Jernhoft, 2014).

6.2 Motivating colleagues

There is a lot of scepticism regarding welfare technology in the home care departments. Scepticism tis related to both the usefulness of the technology and its reliability. The results in my study shows that it is hard for the resource persons to motivate their colleagues when many of them are opposed to the technology in advance. The study done by Nilsen et al.

(2016) show that many home care providers are concerned with the quality of care when implementing technology and they view technology as threatening. This may be true, but in order for the home care providers to fully understand the technology, they also need to be open to new possibilities. The results in my study suggest that many employees have decided from the start that they do not like welfare technology. It can then be argued that this is a baseless notion since it is based on an assumption of technology and not actual facts. The former presented example of transforming patient lists management on paper to digital lists supports this. When they first were forced to change the way they worked, then they saw the positive outcome this provided and changed their mind. In the study by Nilsen et al. (2016) resistance was discovered in all levels of the organization.

This is partly supported by the findings in my study regarding the employees in the district. Although, the level of resistance depends on how you define it. The *department* managers show a certain level of resistance due to their lack of understanding or maybe willingness to understand which *users* the technology could be suited for. This suggests that they in theory are positive towards technology, but they are not willing to use the time required to familiarize themselves with the products. The decision of not involving the service providers at an early stage can also be seen as a sort of resistance from the top management. It shows that the top management do not understand the importance of involving the entire organization when decisions are made.

For conducting a successful implementation there needs to be good training, piloting the technology and consistency (Remo and Aarø, 2015). According to the results of my study, it is difficult to keep the level of training consistent. Training is essential disregarding what type of technology is used. With KOMP, training is important in order to successfully use the tool that KOMP is, in the manner it is supposed to be used for that *user*. If a *user* is waiting for a video call from home care, then not receiving a call due to lack of training, can have negative consequences for *the user's* opinion about KOMP and the quality of care.

With medicine dispensers, the consequences of poor training can have more serious negative effects. For instance, *the user* not receiving their medicine at the right time or more dire consequence like the example mentioned in the result section. Adequate training is essential

to ensure that the technology is used correctly. If adequate training is not provided to all employees, then the district cannot ensure that the technology is safe or that the user get the services they are promised. If the technology is not safe or not used correctly, it will have a negative impact on the entire implementation process.

6.3 Experience with implementing and using technology including KOMP

KOMP works best for users that already have an existing social network and good family relations. Particular if the users also have limited technological skills and experience (Oppedal et al, 2019). This resonates with findings in my study where the implementation did not work even though a *user,* in theory, was a good candidate. The *user* did not have much contact with friends and family so there was no activity on the screen other than what home care provided. My study implies mapping of *the user* is essential before making the final decision regarding which technology is best suited for a particular *user*. *The user* and next of kin need to receive correct and informative information in order du fully know what the technology can provide.

The implementation theory mentions street-level bureaucrats who are implied to be the link between the *user* and the management/politicians (Offerdal, 2014). In my study, the health care providers or the informants and their colleagues work closely with the *users* who will actually benefit from the technology. Their task is, among other things, to be the link between adopted public policy and the citizens (Offerdal, 2014) and in this study referred to as the *users*. For a *nurse*, it might be hard to experience the balance or dilemma between what is best for *the user* and what the management expects from you.

My study indicates that sometimes, the expectations from management and from *the user* do not always align. Top management have designed strict exclusion and inclusion criteria in order to ensure that there will be some economic benefits that can be measured. This makes the informants feeling like it is harder for them to implement because they have to exclude many *users,* they think the technology would benefit. When *nurses* are in nursing school, all the focus is on learning what is best for the *users* and how you can use that knowledge to provide the best possible care. It might be hard to give the best possible care related to welfare technology if the management is promoting economic issues to hard.

The informants point out that their main responsibility is to provide the best possible care to their *users*. In order to be able do so and speak both the *user's* case and at the same time realize societal values as the politicians' extended arm, they must take part in the implementation process at an early stage (Vabø, 2014). They *nurses* are sceptical of technology where the aim is to reduce physical visits. *Users* need physical social contact and technology should be a supplement, not a replacement.

When implementing KOMP this was an issue that arose. In the beginning of the study, the informants were under the impression that they had to find candidates were KOMP could replace a physical visit. This misunderstanding made the implementation hard at the beginning and limited them in which *users* they thought of as good candidates. Maybe, it is because the informants are used to always thinking that technology should in some way replace something in order to reduce costs or perhaps it was due to the incorrect information, they received from their department managers at the beginning of the implementation process? Most *users'* need physical visits so that the health care providers or *nurses* can properly assess the situation in the *user's* home. The *nurses* emphasized that not all observations can be done through a screen. Their view is supported by the study conducted by Lindberg et al. (2013). Their findings showed that the use of ICT technology cannot replace a face-to-face encounter, but it can be used as a supplement to existing care. The study stresses the importance of reflecting over which role technology is supposed to play in home care. If one neglects this consideration it may lead to the implementation of technology that do not provide the needed support for human communication (Lindberg et al., 2013).

The street-level bureaucrats know best of all what their *users* need. To let them be a larger part of the process of figuring out which technologies to focus on, it might be achievable to implement technology that more *users* might need and want. This will also assumably comply with the employees view of what is suitable for the individual *user* (Vabø. 2014). It needs to be a collaboration between all parties in order for the implementation to obtain long-term success. The management needs to include the health care professionals in the assessment in order to understand what *the users* need and deciding what type of technology will help towards assisting that need. Many considerations need to be made such as the users' technological skills, their ability to learn something new and there their cognitive

impairments. When all levels in the organization are not involved in the process, this can cause problems further down the road and make it hard to prepare for unexpected issues that might occur (Nilsen et al., 2016, pp 12)

In my experience, spending time and resources on technology that almost no users are eligible for according to the delimitations sat by the management, is challenging. For instance, it is more challenging conducting training when only few users are recipients of a certain technology. If home care employees rarely encounter a particular technology, they are more inclined to forget how to use it and therefore use in incorrectly.

6.4 Change management

Change management is an important process when implementing change like new technology in an organization (Hiatt, 2006). Employees like to keep routines in the workplace as it always has been, they are as previously mentioned, sceptical of change. This is normal also for new technology in health care. But on the other hand, how will the organization develop if no changes occur? In my findings, all the informants express that it is difficult to motivate other employees to see the value of new technology since they only see more work and do not see the gain or how technology can be a positive change in the long run. The ADKAR model shows methodically and clearly why it is important to implement change management in order to conduct a successful implementation (Hiatt, 2006).

The first point in the model is *awareness* (Hiatt, 2006). This is an important point because it builds the cornerstones of a good implementation process. When employees in home care learn of the new technology just before it is to be implemented, it means that the foundation of awareness has not been laid. The resource persons must have time to inform the other employees, showing them why this is a good technology to implement. Through this awareness giving the employees the opportunity to understand what the gain can be even if it is new and scary. The KOMP movie screening is a good example of how one can accelerate the process of awareness and understanding. It gave the employees the opportunity to learn, ask questions and feel involved. If the employees get enough understanding, they will probably also automatically start talking about welfare technology to both *users* and other

employees. There ripple effects that can lead to employees looking forward to trying out new technology.

Desire represents the willingness to support and drive change into the future (Hiatt, 2006). Each individual in the district is supposed to have a reason to drive the implementation forward. The informants in my study think some of *the nurses* will initiate a desire to provide better services to *the users*. Through this they will have more time for the good conversations. For others, such as the resource persons, they are driven by the interest in technology and the knowledge of why it is so important to invest in technology in the future. On the other hand, the management are supposed to be driven by trying to reduce costs and finding ways to streamline the health care services while still managing to provide good health care. Even though the different parts of the organization have different desires, their goal probably are the same, which is to implement more welfare technology in a successful way.

Knowledge is the next point in the ADKAR model (Hiatt, 2006). It is difficult to provide adequate training to the employees. There is lack of time available for training, several new employees and many employees that work part-time. In addition to busy workdays where the department manager does not prioritize sufficient structures around training, *the nurses* feel like they struggle with finding time for training the others. If you do not conduct sufficient training for the employees, how can you achieve a successful implementation of the technology? My study suggests that too little time is given for training. Also, the case officers in the district lack relevant training, as well as necessary understanding of when and where the technology is suitable for *the user*. If you follow the ADKAR model, you see that the five steps are based on each other. If you provide training in technical measures before you contribute to creating awareness of the technology and a desire to implement it, the training loses value. The understanding of why you receive the training must be rooted before the training takes place. This way, it is also ensured that training becomes more understandable. It is easier to gain knowledge during training if the interest is already there.

Ability is about turning knowledge into action, e.g., a readiness for action (Hiatt, 2006). If the district had followed Hiatt's steps in the change process, they would most likely had been ready to implement the change that would be expected in the organization. They had reached

the point where employees and managers find relevant *users* who they think the technology can be a good fit for, and who will contribute to safety, security and a good life. My study shows that the resource persons talk to the user and relatives and explain to them what the technology is and how it can be used. If employees would have the opportunity to create an anchor in advance and also time to acquire knowledge about the technological changes, they would have been more prepared to present the product to *the users* and their next of kin. One example of this is the difficulties the informants experienced with finding suitable users for KOMP. It would probably been easier if all employees had the knowledge they needed regarding of useful product and why this is also a good product for the next of kin. It is difficult to promote a product to *users* and next of kin if you do not believe in the product.

For instance, medicine dispensers are a technology which this district has fully implemented and is it operation in *the user's* home. It is no longer a project manager who holds the project, and it is now part of the ordinary operation of the organization.

Reinforcement is the last point in the ADKAR model, and it represents the internal and external factors needed to sustain change (Hiatt, 2006). The goal of all welfare technology implementation is to make it operational, and thus the technology will be so integrated into the service that it is natural to continue using it. In order to be able to integrate it as part of the service, there must also be clear guidelines for in which cases the technology is to be used. Top management has made delimitations, but how can one expect the employees to understand the delimitation if they were included in the process to make them? In order to sustain change the whole organization needs to be part of that change.

This model guides me to reveal some of the weaknesses in the implementation process in this district. The findings show that the district started training and implementing the product before they had given the employees the information and time needed to familiarize themselves with the product and its use.

It surprised me how much change management influences the implementation process. I must admit that I thought it would be easier to implement four KOMP in this district with quite many *users*. Before beginning the research for this thesis, I expected them to find good

candidates fairly quickly and that all employees would be positive towards this technology. But surprisingly the KOMP project had to be prolonged due to issues with finding four good candidates. I think my background as a nurse and experience from this particular district influences my view on how the implementation would work. With my background and particular interest in welfare technology, I probably underestimated the other *nurses'* interest in the same.

7 Conclusion

The aim of this study was to obtain increased knowledge of how to conduct an implementation process in a home care district related to their actual level of welfare technology. With using KOMP as the main example, I wanted to reveal if there were any differences between the departments within the district and see what kind of pitfalls or challenges, they faced during the implementation process.

My findings show that the department was able to implement KOMP, however spending more time than expected. Due to the time delay, it is impossible to conclude if the change of communication functionality for the *users* will last. However, my study reveals the pitfall of not rooting such an implementation process throughout all levels of the organization.

In the discussion chapter, theory and empiric findings were deliberated against the findings from my field notes, fieldwork and interviews. It has been very instructive and interesting to learn more of how the district work with implementation and what challenges they faced. The findings showed that there were differences between the departments in the district, but in spite of this, the implementation results ended up rather equally.

My study shows that the employees in home care experience certain challenges related to implementation of technology and I also noted a gap between initial expectations of the process and what was achieved.

My analyse shows critical elements for success: A good implementation strategy rooted both at the top and at operating level, awareness of technology, desire to introduce the use of

technology, the opportunity to obtain knowledge and broad communication between the management and the employees are all controllable challenges for success.

The critical pitfall which then remains are the users' ability to adopt the solution. As I have experienced during several years in my profession as a home care *nurse*, elderly people tend to be sceptical, and just minor problems can stop their motivation and willingness to use the technology. To overcome this obstacle my recommendation is to initiate further sociological studies of the interface between elderly people and technology.

I am satisfied with this study in spite of the fact I had to reduce the scope due to delayed implementation in the user's home. The research questions were answered in a good and structural way and gave relevant data to work on.

I recommend further research to be conducted directed towards the health care's ability to implement welfare technology. Broader studies on the differences between multiple districts in Oslo municipality would be useful. Particular comparison of how the differences emerge and how these differences might influence the implementation process.

Further research into KOMP is also necessary in order to fully see how KOMP can be used in the most efficient and useful way in home care. Particular how KOMP might improve communication between health care services and the *user*.

My hope for future implementation of welfare technology is a balanced combination between technical development, development of the providers ability to implement and sociologic insight in the *user's* behaviour for thorough customizing.

A scientific approach will presumably satisfy both the *user*, the *nurses* and at last also the management and their desire for cost-effectiveness.

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Appendix 1 – Interview guide

Intervjuguide

- Kan dere først fortelle litt om bakgrunnen deres og hvorfor dere valgte å jobbe i hjemmetjenesten?

- Det sies at velferdsteknologi er fremtiden i helsevesenet nå når man forbereder seg på eldrebølgen og sykepleiermangelen. Hva tenker dere om dette utsagnet?

- Først og fremst, hva syns dere om produktet og ideen KOMP pro? Og hva tenker dere om ideen om å bruke det i hjemmetjenesten. Generelt.

- Hvordan har dere opplevd prosessen med implementeringen av KOMP pro?

- Hvilke tilbakemeldinger har KOMP pro fått blant andre ansatte, ledelse, brukere og pårørende?

- Hvorfor tror dere at implementeringen og bruk av KOMP hos brukerne gikk som det gjorde hos dere?

- Hva tenker dere om velferdsteknologi i helsevesenet? Hvordan fungerer implementeringen? Hvis ja, hvordan syns dere erfaringene med KOMP står i forhold til?

- Hvordan

- La oss si at dere fikk full kontroll, over kommuneøkonomien, over regelverket, over arbeidsplassen og de ansatte, og over eldrepolitikken: hvordan skulle implementeringen av velferdsteknologi/ ny teknologi foregått da? Hva hadde man satset på, og hvordan burde man jobbet for å få det ut?

- Hvis dere skulle begynt denne prosessen på nytt, ville dere gjort noe annerledes? Evt hva? Sett nå at det var noen i en liknende bydel som deres som ønsket å få KOMP ut i tjenesten, som syntes det var en god ide og mente den ville tilføre noe bra. Hvordan ville dere da anbefalt dem om å gå frem?

- Ifølge statistikken i kommunen, så er denne bydelen en av de bydelene som implementerer minst velferdsteknologi. Hva tenker dere om det?

- Er det noe annet dere vil legge til som dere føler dere ikke har fått svar på?

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Appendix 2 – Approval from NSD

NSD NORSK SENTER FOR FORSKNINGSDATA

NSD sin vurdering

Prosjekttittel

Implementering av KOMP pro i hjemmebasert omsorg

Referansenummer

445582

Registrert

04.09.2019 av Amalie Bekkelund Hole - s335693@oslomet.no

Behandlingsansvarlig institusjon

OsloMet - storbyuniversitetet / Fakultet for samfunnsvitenskap / Institutt for sosialfag

Prosjektansvarlig (vitenskapelig ansatt/veileder eller stipendiat)

Marit Haldar, mariha@oslomet.no, tlf: 97740392

Type prosjekt

Studentprosjekt, masterstudium

Kontaktinformasjon, student

Amalie Bekkelund Hole, s335693@oslomet.no, tlf: 48246940

Prosjektperiode

15.08.2019 - 31.12.2020

Status

20.09.2019 - Vurdert

Vurdering (1)

20.09.2019 - Vurdert

Det er vår vurdering at behandlingen av personopplysninger i prosjektet vil være i samsvar med personvernlovgivningen så fremt den gjennomføres i tråd med det som er dokumentert i meldeskjemaet 20.09.2019 med vedlegg, samt i meldingsdialogen mellom innmelder og NSD. Behandlingen kan starte.

MELD VESENTLIGE ENDRINGER

Dersom det skjer vesentlige endringer i behandlingen av personopplysninger, kan det være nødvendig å melde dette til NSD ved å oppdatere meldeskjemaet. Før du melder inn en endring, oppfordrer vi deg til å lese om hvilke type endringer det er nødvendig å melde:
https://nsd.no/personvernombud/meld_prosjekt/meld_endringer.html
Du må vente på svar fra NSD før endringen gjennomføres.

TYPE OPPLYSNINGER OG VARIGHET

Prosjektet vil behandle særlige kategorier av personopplysninger om helseforhold og alminnelige kategorier av personopplysninger frem til 31.12.2020.

INFORMASJONSSKRIVENE

Informasjons- og samtykkeskrivene er i utgangspunktet godt utformet, men det må legges til egen avkryssing for observasjonsdelen av prosjektet. For utvalg 2 må siste delen av setningen «Dersom du trekker deg kan du kreve å få slettet innsamlede opplysninger, med mindre de allerede er inngått i analyser eller brukt i vitenskapelige publikasjoner» fjernes, da deltakerne har rett til å få sine opplysninger slettet gjennom hele prosjektperioden. Videre må dato for prosjektslutt oppdateres til 31.12.2020, slik at det samsvarer med prosjektslutt som er oppført i meldeskjemaet.

LOVLIG GRUNNLAG

Prosjektet vil innhente samtykke fra de registrerte til behandlingen av personopplysninger. Vår vurdering er at prosjektet legger opp til et samtykke i samsvar med kravene i art. 4 nr. 11 og art. 7, ved at det er en frivillig, spesifikk, informert og utvetydig bekreftelse, som kan dokumenteres, og som den registrerte kan trekke tilbake. Dette gjelder såfremt informasjonsskrivene oppdateres ihht punktene nevnt ovenfor.

Lovlig grunnlag for behandlingen vil dermed være den registrertes uttrykkelige samtykke, jf. personvernforordningen art. 6 nr. 1 bokstav a, jf. art. 9 nr. 2 bokstav a, jf. personopplysningsloven § 10, jf. § 9 (2).

PERSONVERNPRINSIPPER

NSD vurderer at den planlagte behandlingen av personopplysninger vil følge prinsippene i personvernforordningen om:

- lovlighet, rettferdighet og åpenhet (art. 5.1 a), ved at de registrerte får tilfredsstillende informasjon om og samtykker til behandlingen
- formålsbegrensning (art. 5.1 b), ved at personopplysninger samles inn for spesifikke, uttrykkelig angitte og berettigede formål, og ikke viderebehandles til nye uforenlige formål
- dataminimering (art. 5.1 c), ved at det kun behandles opplysninger som er adekvate, relevante og nødvendige for formålet med prosjektet
- lagringsbegrensning (art. 5.1 e), ved at personopplysningene ikke lagres lengre enn nødvendig for å oppfylle formålet

DE REGISTRERTES RETTIGHETER

Så lenge de registrerte kan identifiseres i datamaterialet vil de ha følgende rettigheter: åpenhet (art. 12), informasjon (art. 13), innsyn (art. 15), retting (art. 16), sletting (art. 17), begrensning (art. 18), underretning (art. 19), dataportabilitet (art. 20).

NSD vurderer at informasjonen som de registrerte vil motta oppfyller lovens krav til form og innhold, jf. art. 12.1 og art. 13.

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Vi minner om at hvis en registrert tar kontakt om sine rettigheter, har behandlingsansvarlig institusjon plikt til å svare innen en måned.

FØLG DIN INSTITUSJONS RETNINGSLINJER
NSD legger til grunn at behandlingen oppfyller kravene i personvernforordningen om riktighet (art. 5.1 d), integritet og konfidensialitet (art. 5.1. f) og sikkerhet (art. 32).

For å forsikre dere om at kravene oppfylles, må dere følge interne retningslinjer og eventuelt rådføre dere med behandlingsansvarlig institusjon.

OPPFØLGING AV PROSJEKTET
NSD vil følge opp ved planlagt avslutning for å avklare om behandlingen av personopplysningene er avsluttet.

Lykke til med prosjektet!

Kontaktperson hos NSD: Lise A. Haveraaen
Tlf. Personverntjenester: 55 58 21 17 (tast 1)

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Appendix 3 – Informed consent

Informert samtykke til behandling av personopplysninger ved deltakelse i forskningsprosjektet om KOMP pro og helseteknologi i hjemmebasert omsorg.

Vil du delta i et forskningsprosjekt om helseteknologi og implementering av KOMP pro i hjemmebasert omsorg?

Forespørsel om deltakelse i et forskningsprosjekt av Amalie Bekkelund Hole, OsloMet

Dette er et spørsmål til deg om å delta i et forskningsprosjekt hvor formålet er å undersøke hvordan implementering av KOMP pro i hjemmebasert omsorg vil fungere for bruker og hjemmetjenesten. I dette skrivet gir vi deg informasjon om målene for prosjektet og hva deltakelse vil innebære for deg.

Hva innebærer prosjektet?

Du er sykepleier/helsefagarbeider i Hjemmetjenesten, bydel Bjerke, og seksjonsleder i hjemmebasert omsorg i bydelen har samtykket til at dette forskningsprosjektet utføres i bydelen. Formålet med prosjektet er å undersøke effektene implementering av KOMP pro vil ha. KOMP pro er en teknologisk løsning som er lagd for eldre med lite eller ingen teknisk kunnskap. Den fungerer slik at hjemmesykepleien kan sende meldinger, video chatte og sende bilder til bruker som har denne skjermen hjemme. Pårørende får også muligheten til å gjøre det samme. På denne måten så kan det bli enklere å holde kontakt med pårørende og hjemmetjenesten vil få en ny måte og kommunisere på.

Dette er et prosjekt som kommer til å vare i 1-2 måneder. Under prosjektet så du bli invitert til å delta i et intervju. Dette vil ta sted før og etter oppstarten med KOMP pro. Forsker vil også være til stede under implementering for å observere hvordan det fungerer, hvordan dere opplever det og hvilke problemer som eventuelt oppstår.

Det som skal analyseres er hvordan begge parter opplever å bruke denne formen for teknologi, hva som fungerte med det, hva som eventuelt ikke fungerte og hva som kunne eventuelt gjort opplevelsen bedre.

Intervjuene vil bli tatt opp på lydbånd, deretter transkribert elektronisk. Da vil alle direkte personopplysninger være anonymisert. Personopplysninger som blir innhentet er navn og stilling. Prosjektet er en del av en masteroppgave.

Hva skjer med opplysningene du gir fra deg?

Informasjonen som registreres skal kun brukes som beskrevet i hensikten med studien. All informasjon som nedtegnes vil bli behandlet uten navn eller andre direkte gjenkjennende opplysninger. Vi er underlagt taushetsplikt. Alle opplysninger vil bli behandlet konfidensielt, og ingen enkeltpersoner skal kunne gjenkjennes i den endelige studien.

Ditt personvern – hvordan vi oppbevarer og bruker dine opplysninger

Vi vil bare bruke opplysningene om deg til formålene vi har fortalt om i dette skrivet. Vi behandler opplysningene konfidensielt og i samsvar med personvernregelverket.

- Studenten og veilederen vil ha tilgang til datamaterialet.
- Navnet og kontaktopplysningene dine vil jeg erstatte med en kode som lagres på egen navneliste adskilt fra øvrige data».
- Konfidensialitet ivaretas ved at ditt navn ikke vil skrives ned annet enn din signatur på samtykkeskjema. Transkriberte intervju blir merket med en kode f.eks deltaker 1-4. Transkriberte intervjuer oppbevares pseudonymisert i en passordlåst mappe på forskers private datamaskin.

Som deltaker i studien har du rett til å få innsyn i hvilke opplysninger vi registrerer om deg i etterkant. Du har også rett til å få korrigert eventuelle feil i de opplysningene vi har registrert. Deltakelse i studien er frivillig. Du kan når som helst og uten begrunnelse trekke deg fra studien. Dersom du trekker deg kan du kreve å få slettet innsamlede opplysninger, med mindre de allerede er inngått i analyser eller brukt i vitenskapelige publikasjoner. Alle som deltar i studien har rett til å få informasjon om resultatene av den. Prosjektet vil avsluttes innen 31.desember 2020. Alle personsensitive data vil da bli slettet.

Studien er meldt til personvernombudet for forskning, NSD - Norsk senter for forskningsdata AS (personvernombudet@nsd.no / 55582117). OsloMet ved administrerende direktør er databehandlingsansvarlig. Deltakere har rett til å klage til Datatilsynet (postkasse@datatilsynet.no / 22396900) angående behandling av personopplysninger.

Lurer du på noe mer?

Kontakt Amalie Bekkelund Hole på 48246940/ amaliebekkelund.hole@bbj.oslo.kommune.no
Veileder Marit Haldar /marha@oslomet.no

SAMTYKKEERKLÆRING

Det lovlige grunnlaget for behandling av personopplysninger er samtykke. Jeg/vi har lest og forstått informasjonen over og samtykker til (sett kryss ved det som passer):

☐ Deltakelse i prosjektet og bruk av personopplysninger som beskrevet ovenfor

☐ Publisering av bakgrunnsopplysninger som kan være indirekte personidentifiserende

☐ Deltakelse i gruppeintervju

Med vennlig hilsen

Prosjektansvarlig   *Eventuelt student*
(Forsker/veileder)

Jeg har mottatt og forstått informasjon om prosjektet KOMP pro og helseteknologi i hjemmebasert omsorg og har fått anledning til å stille spørsmål. Jeg samtykker til:

☐   Å delta i personlig intervju.
☐   At det blir utført deltakende observasjon

Jeg samtykker til at mine opplysninger behandles frem til prosjektet er avsluttet, ca. Juni 2020.

(Signert av prosjektdeltaker, dato)