ORGANISATION AND IMPLEMENTATION OF WELFARE TECHNOLOGY - AN INTERVIEW STUDY IN SWEDEN AND NORWAY

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ABSTRACT

This paper reports from an interview study on organisation and implementation of welfare technology in municipalities in a rural interregional area in Sweden and Norway. The aim of this paper is to analyse how municipalities organize their work with implementation of welfare technology. The results show that there are differences in organization, prioritization and decision-making between the municipalities. The bigger municipalities seem to have more resources to develop and structure test and implementation processes. The smaller municipalities seem to be more dependent on "fiery souls" managers' commitments in implementing welfare technology.

1. INTRODUCTION

Municipalities are intended to accelerate digital transformation in care services, as this is expected to improve the quality and cost-effectiveness of care provision. The concept of welfare technology is used in the Scandinavian countries, and it covers all the technology used in health and care. In some contexts, Welfare technologies and e-health is sometimes equated with the concept welfare technology (Frennert & Baudin, 2021). Such technologies can be described as assistive technologies providing physical, social and cognitive assistance (Kouppamäki, 2021). In this paper, it refers to all kinds of techniques aimed to improve the quality of welfare services through increased security, activity, participation or independence for recipients of health and care services, as usually called user-related technologies. Such technologies consist of safety alarms, night monitoring, digital surveillance, sensor and movement detectors, assistive robots and exercise apps, and they are aiming to increase empowerment, safety, autonomy and independence among older or disabled people (Emilsson, et al., 2023). Also, process-related technologies are covered by the concept of welfare technology. These are intended to improve professional practice as well as to improve quality on welfare services by facilitating, improving and streamlining care and nursing from the staff's point of view. Such technologies could be planning tools, digital medication apps and so on. The concept of welfare technology also concerns learning of welfare technology (SOU 2020: 14; Svensson, et al., 2021). However, the implementation of digital technology meets challenges du to organisational resistance, insufficient infrastructure, as well as ethical and juridical issues. Implementation of welfare technology obviously requires knowledge of digitalization, and to organize and lead in implementation processes (Gjellebæk, et al., 2020; Nilsen, et al., 2016; Svensson, 2021b). New ways of working is needed in adopting and using welfare technology in care practice. This implies changes in professional roles and identities, and requires learning and competence development among health and social care professionals (Glomsås, et al., 2021; Svensson, et al., 2023). Moreover, learning can be supported by external actors, as academia (Grundén, et al., 2020; Svensson, 2022).

An initial study showed that the Norwegians and the Swedish rural municipalities had little experience regarding implementation and that the competence in welfare technology was relatively low in municipalities. A case study was then conducted to found out how rural municipalities in Norway and Sweden manage to implement welfare technology. Thus, the aim of this paper is to analyse how municipalities organize their work with implementation of welfare technology.

2. RESEARCH METHOD

A total of eight representatives from eight municipalities have participated in an interview study on which this paper is based. The study was conducted in the beginning of 2021. The included municipalities are based on the participating municipalities in an interregional project funded by Interreg Sweden-Norway, European Regional Development Fund. Representatives from health and social care from ten municipalities were asked to be interviewed, and eight of those representatives accepted. Four of the included municipalities are smaller and four of them are bigger. Seven of the municipalities are located in Fyrbodal, Sweden, and one is located in Viken, Norway, all close to the border between the countries. The representatives and municipalities have been anonymized and the municipalities are referred to as Municipality A to H in this paper. All the municipalities have, in one way or another been active in the collaborative and interregional project concerning organization, implementation and use of welfare technology. The interviewees were at the time of the interview in any way involved in the work with implementing welfare technology, and worked in roles as business developers, digitization strategists, department heads or social workers with a certain responsibility of welfare technology implementation. The interviews were conducted as semi-structured interviews via video link, and lasted between one and two hours each. Thematic analysis was used to analyse the collected data (Braun & Clarke, 2006). The data were analyzed based on six different themes; planning, decisions, information, competence development, and implementation, for smaller and larger municipalities respectively.

3. FINDINGS

The motives for implementation of welfare technologies are the need for a meaningful everyday life, increased participation and sense of independence for the people that need support. Municipalities want to increase individuals' opportunities for independence and participation and to improve public health and welfare. They also want to invest in using digitalization to prevent the challenges in elderly care that comes within the sparsely populated areas with large geographical distances. Welfare technology is considered to be an important solution to the challenges which comes with an aging population, as fewer staff in health and social care. The aim of the municipalities is to use welfare technology, enable for innovation and develop useful models for how the technologies can be used. An extra effort is added on skills development and work-integrated learning at the workplaces, on developing the organizations to be able to create common municipal arenas for knowledge exchange. More details of the organization of the welfare technology implementation in this rural and interregional area are presented in a book with the results from the project (Svensson & Gjellebæk, 2021).

3.1 Organizing for Implementation in Larger Municipalities

Municipality A works actively to integrate the welfare technology in the health and social care. The municipality has collaboration with other municipalities. In the overall strategy, descriptions of requirements are developed, and a mapping of needs are conducted. Professionals, patients and relatives are involved in focus groups where needs are discussed. The municipality has a strategy for prioritizing welfare technology, but this is not yet followed for each project, which leads to random prioritization between different projects. It is the municipal board that decides on the overall framework for funding and priorities, while the management for health and welfare decides on what should be included. Selected professionals and managers are trained in how the technology works and how it should be handled, and these in turn disseminate the knowledge on to colleagues. The training often takes place via clear written instructions and via instruction films about what the procedure with and around the technology looks like. After implementation, the projects

are followed up regularly by the municipality's department for e-health and an ongoing dialogue takes place between those involved.

Within the care administration in Municipality B, they work with needs-driven development in the field of welfare technology. The municipality is primarily looking for the welfare technology that improves the conditions for both professionals in care and for patients who receive the care, but which also makes the municipality's operations more efficient. The municipality collaborates with other municipalities to gain inspiration and knowledge. User questionnaires, relative questionnaires and observations of users have been used as a basis for collecting the needs. An implementation strategy is made for each project, which includes a project plan and a communication plan. A standardized approach to decision-making around welfare technology does not currently exist, as the decision-making look different depending on the proposal and project. The municipality establishes an implementation strategy for each project, which includes a project plan and a communication plan. The communication plan specifies how professionals, patients and relatives are to be informed and trained. When testing welfare technology, pilot projects are often carried out. The needs for technology as a means of communication for both patients and professionals as well as an improved work environment has been confirmed, as has a need for more efficient health and social care.

Municipality C works to seek welfare technological solutions to challenges that arise in health and social care and to secure users' well-being and professionals' working environment. The welfare technology that the municipality chooses to introduce comes from inspiration from other municipalities. The municipality is also involved in a cross-regional project which aims to give patients a greater role in the choice of technology. The municipality engages in dialogue with patients, relatives and health and social care professionals to ascertain needs that could be covered with the support of welfare technology. The need for efficiency and the need to become a more attractive workplace for health and social care professionals are prioritized. Currently, there are no formal regulations on how decision-making should take place. Prior to the implementation of welfare technology, affected professionals are informed and trained. The municipality wants to test certain technologies on a smaller scale before full-scale implementation via so-called pilot projects. The municipality evaluates the results of pilot projects and compares cost versus benefit using surveys and in-depth interviews.

Municipality D works actively with welfare technology in healthcare through continuous implementation. The municipality monitors which products are available on the market by participating in seminars on the subject. Sometimes health and social care professionals come up with proposals for welfare technology. The need for welfare technology is based on patients or the work conducted by the professionals. The municipality then carries out a needs survey, which involves first collecting information through interviews with patients, professionals and possibly others who will take part. However, professionals and patients are not as involved in the choice of welfare technology as the municipality strives for. The social administration's management team is usually the decision-maker, but in the case of decisions on major financial issues, it is also brought up in the municipal council. A plan for training and dissemination of information is created when a decision on the implementation of welfare technology has been made. When testing welfare technology, the municipality uses pilot projects where a selected group of, for example, patients and professionals are involved.

3.2 Organizing for Implementation in Smaller Municipalities

Municipality E works actively to implement welfare technology that will benefit the patients and the professionals. The municipality works with a digitalization strategist and an e-council where the most prioritized needs are discussed. The needs inventory is made by each health and social care manager who organize workplace meetings where needs are discussed. The municipality does not yet have a strategy for a more comprehensive collection of needs. There is still no widespread user participation in the prioritization of welfare technology. Health and social care professionals are intended to be involved in the development and decision-making around welfare technology, but the municipality has not yet reached the goal. The municipality also cooperates with other municipalities. When deciding on welfare technology that may affect politics, the proposal is presented to the social welfare board, otherwise the social administration itself decides on introduction. When introducing welfare technology, a communication plan is created on how the information should be disseminated and plans are made for how training and meetings are to be set up. Web-based training courses are often launched that the professionals can participate in. When testing new technology, a project is first implemented on a small scale, in a limited geographical area in order to possibly broaden the introduction if everything works as expected.

Municipality F has implemented some welfare technology, however there is no strategy for how decision-making, prioritization and implementation should take place. It is up to each health and social care department to decide what they want to implement. No structured needs analysis takes place in the selection of welfare technology, but it is chosen based on a perception that it will be helpful. The municipality takes inspiration from other municipalities, and via various regional councils, and implements what is deemed to work well. The decision-making process looks different depending on which welfare technology is to be decided upon. For welfare technology that requires a lot of resources, the social administration highlights to the social committee which welfare technology the municipality wants, which in turn makes decisions about funding. Regarding welfare technology that does not cover large sums, the social administration itself makes decisions about implementation. When a decision on implementation has been made, selected professionals are trained in how the technology works, who in turn teach their colleagues. Workshops for staff on how the technology worked have also occurred during implementation. The municipality tests the technology on a smaller scale to examine the ease of use, before procurement starts.

Municipality G works with needs-driven development of welfare technology. The municipality sees advantages with the type of technology that makes the municipality's operations more efficient and improves the conditions for both professionals in health and social care and for patients who receive the care. To arrive at which welfare technology should be introduced in the municipality, the management teams of the care administration and the social administration, together with the municipality's digitalization strategist, map the needs of their operations. The municipality collaborates to a certain extent with other municipalities to find common solutions in terms of welfare technology. There are also various forums within the region. Prioritization of which welfare technology is to be implemented is based on the municipality's financial resources, time and that implementation is prioritized where the need is judged to be greatest. When making decisions, the management of the care administration jointly decides which project should be prioritized based on needs. Before implementation, professionals are informed about the technology and any training efforts are put in place. When testing new technology, a smaller pilot project is usually introduced. After the pilot project, an evaluation is carried out that leads to the decision whether the project should be expanded and benefit more patients, and in that case how such a wide introduction should be carried out.

Municipality H has not come as far in the development of welfare technology as they had hoped for, where the welfare technology is aimed at patients. However, there has been a small-scale implementation of user-related welfare technology projects. The municipality does not actively cooperate with other municipalities in the field of welfare technology, but takes inspiration from selected municipalities. The benefit and the long-term perspective of welfare technology implementation is central to the choice of welfare technology. There is a municipal council, consisting of activity managers, where welfare technology is discussed and where the activity managers can exchange knowledge about welfare technology with each other. In the case of decision-making about the implementation of welfare technology, the proposal is first raised from health and social care managers to the social administration, which makes the decision. For larger projects that involve larger resources, the matter is decided at the political level. By informing patients and professionals at an early stage, the municipality hopes to prevent possible resistance to welfare technology. In some cases, professionals have been trained in the welfare technology prior to the commissioning of the technology. There is a so-called "training center" where professionals can test technologies and receive training. In order to test the welfare technology, the municipality starts a pilot project in a smaller, controlled, small-scale test environment. A pilot project is continuously evaluated during the test period and a decision is then made about implementation on a full-scale level.

4. CONCLUSION

The results show that there are differences in organization, prioritization and decision-making between the municipalities. It can be assumed that the differences are in how resourceful the municipalities are is as well as how strong the commitment in question is in each municipality. It is obvious that some aspects cause resistance to implementation of welfare technology in municipal healthcare (Nilsen, et al., 2016). Management also face challenges in digitalization of healthcare services (Gjellebæk, et al., 2020). The bigger municipalities seem to have more resources to develop and structure test and implementation processes. The smaller municipalities seems to be more dependent on "fiery souls" commits to implement welfare technology.

It is clear from the results that all municipalities are working to broaden the implementation of welfare technology in their health and social care operations. However, it shows that the municipalities at the same time have different strategies and uses different amounts of resources in the development within this field. This research contributes to inspire the field of work of in the municipalities and to encourage them to exchange knowledge and experiences as well as to collaborate.

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