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Facilitating Interprofessional Collaboration on Electronic Medicines Management

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Abstract. Medicines are important for well-being. Thus, medication errors can have severe consequences, even death. Transfers between professionals and levels of care are a challenge in terms of medicines management. Norwegian governmental strategies encourage communication and collaboration between levels of care, and several initiatives are invested in to improve digital medicine management. In the project Electronic Medicines Management (eMM), we established an arena for interprofessional discussions about medicines management. This paper provides an example of how the eMM arena contributed to knowledge sharing and development in current medicines management practices at a nursing home. Building on communities of practice as a method we carried out the first of several sessions, with nine interprofessional participants. The results illustrate how discussion and agreement were reached on a common practice across different levels of care, and how the knowledge required bringing this knowledge back to the local practices.

Keywords. electronic medicines management, collaboration, development

1. Introduction

Medicines are important for well-being. Thus, there are mistakes and even deaths [1]. Ensuring collaboration and continuity of care in terms of adherence to medication lists when patients are transferred from one health care level to another is a challenge [2]. Norwegian governmental strategies encourage communication and collaboration between levels of care [3]. Elderly patients and patients with long-term and chronic conditions often receiving several different medicines and require the delivery of health services from different professionals and levels of care. Digitalization can contribute to medicines management and is a high priority in Norwegian e-health strategies [4], where several initiatives are invested in to improve medicine management [5, 6]. Lack of communication, understanding and collaboration between professionals is a challenge for medicines management [7]. Technological tools alone cannot solve problems relating to medicine management. To provide seamless care and high-quality medicines management, there is a need for interprofessional collaboration between different service

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levels. Professionals need to collaborate on how to create best practice using these technologies to create coherent and coordinated medicines management at municipality, primary care, and specialist care levels.

As part of the project "Electronic medicines management (eMM)—A comparative case study promoting coherent health and welfare services," the research group facilitated an arena for discussions among healthcare providers from different professions and institutions as an initiative to improve medicines management [8]. In this paper, we illustrate how development can be facilitated by giving an example of this arena where we use community of practice (CoP) as a method for facilitating interprofessional collaboration on best digital practice and renewal in health care. *How can the eMM arena contribute to development in medicines management practices?* The paper contributes to understanding of how an arena for interprofessional discussions can facilitate innovation and renewal about medicines management.

2. Theoretical framework

Theoretically, we frame interprofessional collaboration as forcing development from and with each other [9]. Challenges with medicines management drive learning. Learning can occur as health care professionals apply what they have learned in the arena, in their own local practices [9]. Learning is not the transfer of knowledge between someone who knows to someone who does not but an ongoing process where professionals share knowledge and generate new ideas that are then brought into practice [9]. The learning process is about reflecting on how well ideas work or do not work in practice [10]. This is in line with social learning theory, where knowledge and practices are discussed and brought back to the respective community or health care setting.

3. Methods

We used CoP as a method to gather professionals for knowledge sharing about their medicines management practices [9-10]. CoP is "groups of people who share a passion for something that they know how to do, and who interact regularly in order to learn how to do it better" [11 p. 2]. An arena was established enable interprofessional interaction and engagement in creating and sharing knowledge [9]. CoP serves as a method for understanding work practices, sharing knowledge, and development and innovation in digital medicines management practices. We designed the arena into eight sessions. Here, we report on the first session, held in a city in southwest Norway in December 2022. We recruited professionals from different care levels and services involved in medicines management. This session brought together a core group of nine interprofessionals working with elderly patients and engaged in medicine management: a hospital doctor, a nursing home doctor, a trainee doctor, a hospital nurse, a nursing home nurse, a home care nurse, a nurse representing health informatics delivery of all ICT services to specialist health services, a community pharmacist, and a hospital pharmacist. Before the meeting, all the participants were asked to prepare a case for discussion. We selected one case for analysis to illustrate the opportunities of interprofessional development using CoP. The session lasted for 3 hours, and it was audio recorded and transcribed. The data is analyzed by a language-focused approach during interactions—i.e., tension in the talk and decision support in the transcripts of discussions among professionals [11].

4. Results and discussion

In this session (Table 1), the professionals discussed how and when to share information about medicines when a patient is transferred from a nursing home to a hospital for an examination, where it is not known whether the patient will be admitted to the hospital or sent back to the nursing home after the examination. The case illustrates the lack of integration between hospital's and nursing home's medication lists. The discussion starts with a patient from a nursing home attending an outpatient consultation in a hospital.

Table 1. Interprofessional knowledge sharing about medicines management.

Professionals	Medicines management
Nursing home doctor (1)	If I have reduced the patient's dosage or changed the patient's medication prior to transfer [to the hospital], the list of medications when the patient returns is the same as the original list that the hospital had (not the amended list).
Nursing home nurse (2)	Yes, why? Does it automatically return?
Home care nurse (3)	Yes, automatically.
Nursing home nurse (4)	We have to print out all the medicines and send an electronic report, but we don't know if the patient will be hospitalized, so we send a paper note in the patient's hand. The note always disappears.
Home care nurse (5)	If the patient is not hospitalized, where does the list end up?
Hospital nurse (6)	I'll send the patient in for admission anyway. When the name appears on my list, they [medicines] are there [in the journal]. But when I discharge the patient, the patient is not on my list. That's why we can't do it after [patient leaving]
Nursing home doctor (7)	I have started to send it electronically as soon as they are transferred from here [nursing home]. But then there is the question of whether there is a breach of confidentiality when the patient is not admitted.
Hospital doctor (8)	No! No, it's not.
Nursing home nurse (9)	We have been told that we are not allowed to send admission reports, regardless of whether a patient is admitted or not. We can send the medication list, right?
Nursing home doctor (10)	Yes! You must do it within 24 hours after you have had the patient admitted to the geriatric ward.
Hospital nurse (11)	It's just for the logistics.
Nursing home nurse (12)	Ok, can I take it to my colleagues that it is correct to send the medication list electronically.
Hospital nurse (13)	Yes. The answer is yes! I think we need to bring this to the department [at the hospital]
Nursing home doctor (14)	Great! Paper in hands, disappearing in ambulance or …

The nursing home doctor worries that the changes made to the patient's medicines in the nursing home (1) will not be apparent in the hospital's list because the hospitals use another electronically system. The hospital doctors use the medication list from the latest hospitalization (2, 3). As the nursing home wants to provide the hospital with the updated medicine list, they send the medicine list as a paper note with the patient, but this invariably disappears (4, 14). They do not send an electronic message due to concerns about breaking confidentiality (7), not knowing where the information ends [they do not know which department the patient is transferred to] (5). They are concerned about sharing information with the hospital (send an admission report) without the patient been hospitalized (9). The doctor and nurse from the hospital inform them that sending the medication list electronically does not break confidentiality rules (8, 11) and that nursing home staff do not have to wait for conformation of hospitalization (13) before sending the medication list, which must be sent within 24 hours of the patient being admitted (10). Instead of waiting for confirmation of hospitalization, and to be within the 24-hours window (10), it is a good thing for both the nursing home and the hospital to admit the

patient, as the nurse at the hospital cannot find the medicines when the patient is admitted only for tests and then discharged (10). Finally, the nursing home representatives (a doctor and a nurse from different nursing homes) confirm that they will take this knowledge back to their practice and change their practice relating to sending information electronically (9, 12, 13), which is a much safer way of sharing information than sending a piece of paper that can easily get lost (4, 14). This case illustrates how interprofessional discussion among professionals from different levels of care can result in agreements about best practice that they can take back to their colleagues and local practices.

5. Conclusions

Medicines management is especially complex when it involves communication and coordination between different professionals and levels of care. The eMM project can facilitate interprofessional discussions and development of practices. We illustrate this by presenting a case where professionals discuss practices on patients' medication lists and reach agreement regarding sending such lists electronically. This makes the information safer and replaces paper lists that often disappear when a patient moves between health care providers. Using CoP as a method for facilitating interprofessional collaboration contributes to development in medicines management practices and knowledge can be brought back to the professional community. The limitation is the small sample. Conducting all eight sessions will strengthen the knowledge about the eMM arena as a contribution to practices.

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