

ORAL SESSION 4: COMMUNICATION AND GOVERNANCE

User expectations and experiences during implementation of new technology in healthcare services

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Purpose There is limited research on the impacts on people of innovations in the public sector (Glor, 2014). This study explores and identifies expectations and experiences among employees and patients throughout the introduction of a new digital social alarm system in a nursing home and in homebased care services in a mid-Norway municipality. The system consisted of new devices, i.e. social alarm devices for the patients/clients and mobile phones with new apps for administrating alarm calls for the health personnel. **Method** During 2015-18, we conducted a longitudinal qualitative and explorative study of this implementation process through individual and focus group interviews. Participants were strategically and conveniently selected and included both healthcare employees and clients/patients living in nursing care or private homes. As a baseline, a first round of interviews (n=26) was conducted two months before the first system deployment. A second round of interviews (n=26) was conducted three months later, while the new system was still relatively new to the users, and a third round (n=6) two years later. All participants were duly informed and signed written consents prior to data collection. Data were analysed by systematic text condensation (Malterud, 2002) and elements of grounded theory (Charmaz, 2000). Findings were organized using ideas from (Rogers, 2010) as sensitising concepts, although the results and major findings were compared to other relevant research and theories. **Results and Discussion** The early adaption phase, while staff and patients were waiting for the new system, was characterized by enthusiasm and great expectations. The period just after the first deployment, however, turned enthusiasm to apprehension, initial distrust and resistance, and was perceived by some as a period of mild chaos and instability. Some of the negative experiences could be attributed to initial technical problems, inevitably influencing users' perceptions and opinions. Some employees claimed they had difficulties operating the mobile phone and app properly. Some raised concerns about patients' safety being compromised, as well as feelings of dissatisfaction and disempowerment with their own working conditions, possibly connected to the fact that the new system led to some changes in workflow. Several nurses stated needs for more training and extra supervision. Two years later, although occasional frustrating events still arose, there was a general acceptance among the employees that the new system was far better than the old one. Some stated reasons were that it was perceived to respond quicker, being less vulnerable and thus safer, easier to administrate and provide a lot more practical functionality than the old system. They also reported that patients felt more independent as they could move about more freely even outdoors, thus increasing their quality of life. The study gives new insight and understanding of transitions from old to new technologies. It emphasizes the need for more knowledge in health care services about innovation and implementation of new technologies. It also supports similar research (Nilsen et.al., 2016) in that trust, good communication and interaction at all levels in the organizations strengthen the probability of success of public sector innovations.

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