

Video-based patient monitoring in long-term inpatient care

A. S. Fischer, S. Kaiser, A. Münzing, A. R. Osmaston, M. J. Schmachtel, M. Sailer

Purpose Video-based monitoring systems in long-term inpatient care represent an opportunity to increase patient safety (Wright et al., 2022, p. 179). Technologies using infrared technology, as well as video and sound transmission are used to recognize movement to prevent falls and enable the continuous recording of vital parameters (He et al., 2023, pp. 215-216.; Htun et al., 2020, p. 23; Grüber et al. 2020, p. 7, Wright et al., 2022, pp.179-180). Individual assessment of the necessity and limits of application from a nursing care perspective is essential due to the restriction on the patient's privacy and autonomy, as well as ethical considerations within the socio-technical innovation (Demiris et al., 2009, pp. 46-47; Rony et al., 2024, p. 2). Experienced nurses as well as the public were asked about the potential and risk factors of video-based monitoring systems using semi-structured interviews and an online survey. The aim was to conduct qualitative and quantitative data as a basis for a discussion and critical analysis particularly for institutions preparing the implementation process. **Method** The research was conducted in a mixed-method design by a student research group. All surveys are based on prior literature research however, the analysis is based on defined criteria. Interviews were conducted with nursing care professionals (n=4) and people from the public (n=244) were surveyed on the topic of video-based monitoring systems via an online survey. The interviews were analyzed using inductive, structured content analysis method (Mayring & Fenzl, 2019, p. 637). The online survey was analyzed using descriptive statistics. **Results & Discussion** The results clearly show a critical debate in the public as well as in the professional community, weighing up advantages and disadvantages as well as ethical aspects in video-based monitoring systems. A total of 47,1% (n=115) of survey participants are in favor of the use of monitoring systems in nursing, while 40,1% (n=98) are undecided. In contrast, 185 people (75,8%) of the survey participants are of the opinion that video monitoring systems should not be used across the board and that specific groups of people should be considered differentially. Frequently cited reasons for this are data protection, restriction of privacy and self-determination, as well as the fear of data abuse. The predominant advantages from the interviews with experienced nurses included continual vital sign monitoring, faster reactions in emergencies, a reduction in the workload of nursing staff and an increase in patient safety, for example through improved fall prevention for patients. People in need of care were not explicitly interviewed in the first approach, thus further research is required including a patient-centered perspective, judging individual advantages and disadvantages. The hereby collected data suggests that a general interest in the implementation of video-based monitoring systems is apparent among the population. If there is a lack of acceptance in society, the assumption could be made that there are too few supporters and that video-based monitoring systems in nursing care would not find its way into everyday care. There is an assumed knowledge gap about the topic of a person in need of care and their setting. This requires a different approach and further research with a greater focus on the individual information needed of those affected by the implementation of video-based monitoring as well as their fears and concerns. In order to increase acceptance of aspects such as data protection, privacy and possible abuse of data, further research is needed to establish a reliable conclusion to this matter.

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Affiliation: Health Faculty, DHBW Heidenheim, Germany

Email: marcel.sailer@dhw-heidenheim.de; **ORCID ID:** 0009-0000-3825-3984