

LEARNING FROM ADVERSE EVENTS IN CLINICAL PRACTICE

A pilot study utilizing Ecological Momentary Assessment in specialist nurse education

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Introduction: Patient safety initiatives are highly prioritized in healthcare services. Still, adverse events occur, and pose challenges both to the patients, relatives, to the healthcare personnel involved as well as at an organizational level. Emergency departments (ED), operating rooms (OR) and intensive care units (ICU) are highly specialized hospital units with a high risk and incidence of adverse events. In Norway, nurses are specialized for work in EDs, ORs and ICUs through a two-year masters' program. In other sectors and industries, such as the aviation and petroleum sectors and the nuclear industry adverse events are utilized in learning- and educational activities. Traditionally, adverse events have not been utilized this way in healthcare services. The pilot study presented here, is part of a Ph.D. project aiming to explore 1) what to learn from master students' experiences with adverse events in clinical practice, 2) what to learn about adverse events and safety initiatives from experienced professionals in high risk professions, both within and outside healthcare services and 3) how simulation, using virtual reality (VR) and the "Room of Horror" model may support students in avoiding and managing adverse events

Ecological momentary assessment (EMA) involves repeated sampling of participants' current behaviors and experiences in real time, in their natural environments. EMA aims to minimize recall bias, maximize ecological validity, and allow study of microprocesses that influence behavior in real-world contexts.

Aim: The aim of the pilot study is to explore master students' experiences with adverse events utilizing EMA integrated in a mobile application as a method of data collection.

Method: Master students of anesthesia, intensive care and operation theater nurses (AIO, n=30), were asked to share their experiences of patient safety, risks or adverse events. In two weeks they Their reflections were analyzed by Braun and Clarke's method and the results are used in further in the PhD project were asked to

Result: A small group of the AIO students agreed to participate in the pilot (10 %), and all three specialties were represented. The app are reported easy to understand and use. They had two possible times during the day to answer, and a leek after three hours. The time for receiving the questions and the way to register data, was evaluated as satisfactory and easy. When analyzing the answers some of the questions might be perceived as equal, and some seems difficult to reflect on. The respondents gives a lot of input at their own interest of patient safety and their attention on avoiding adverse events. Communication, medication control, ask questions and "stay a step forward the situations" are focused. Patient safety are discussed with their supervisors, but they are more careful when talking about what attention their colleagues are giving the theme.

Conclusion: Despite a small number of participants, the pilot gave a wide response of how to use the app, for both the researcher and the participants, and how to prepare the questions for increased data quality. To our knowledge, using EMA, and a mobile app. for data collection to learn from adverse events in healthcare services is still quite unexplored. The method seems to be functional and understandable, and a raised number of participants will enrich the scope of data, the possibilities to learn more from the students, and to conclude the results.

References: Christensen, T. C., Barrett, L. F., Bliss-Moreau, E., Lebo, K., & Kaschub, C. (2003). A practical guide to experience-sampling procedures. *Journal of Happiness Studies*, 4(1), 53-78. Lachmann, H., Fossum, B., Johansson, U.-B., Karlgren, K., & Ponzer, S. (2014). Promoting reflection by using contextual activity sampling: a study on students' interprofessional learning. *Interprof Care*, 28(5), 400-406.