## Cilvēkfaktors, ergonomika un darba vide, industriālā inženierija / Human Factors, Ergonomics and Work Environment, Industrial Engineering



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## CHALLENGES OF HUMAN FACTORS AND ERGONOMICS INTEGRATION IN PATIENT SAFETY

Introduction. Health is the most important thing in life, as it enables people to do everything else they want to do. Moreover good health ensures an uninterrupted good quality of life. In 1948, the World Health Organization defined health as "the state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (World Health Organization [WHO], 1948). The timely delivery of good quality health care requires a series of actions that decisively impacts patient outcomes (WHO, 2023). Although a contemporary healthcare system provides an opportunity for a better health-care service, along with the progress, the system has become complex, involving multiple human factor ergonomics which manifest as process coordination, interaction, communication, and co-operation among stakeholders which may cause the risk of harm to the patients. Studies in patient safety suggest that many adverse events occur due to not paying enough attention to the human factor and ergonomics [HFE] when developing and implementing technologies, processes, workflows, tasks, teams and socio-technical systems.

The aim of this study is to investigate the integration of HFE into patient safety management and better understand the gaps and unexploited aspects of HFE in healthcare and patient safety.

Methods. The current study is a literature review of scientific articles about challenges in integration of HFE into patient safety management. Information was analysed and synthesized. In research the review of the scientific literature was made to develop and propose possible solutions for better use of HFE factors in prevention of medical errors.

Results. The results of the study show that that there are gaps and unexploited aspects of HFE in healthcare and patient safety. During the past three decades, understanding of the significance of HFE has increased. In nowadays, healthcare professionals, leaders and organizations understand the importance of the HFE as a scientific discipline that can produce knowledge to redesign healthcare systems and processes and improve patient safety and quality of care (Carayon et al., 2013) . There have been studies conducted in Latvia on the importance of ergonomics in patient safety, however there are only few studies on the integration of ergonomics in process management of patient safety. Therefore, the current research focuses on the need to integrate ergonomics (human factor) into process management and process management improvement.

Conclusions. Integration of human factor ergonomics into process management and improvement would reduce the number of adverse events related to the provision of patient healthcare, improve the internal (emotional) and physical environment of work, and save health-care spending.

**Primary author:** Mrs VEILANDE, Olga (Riga Stradins University)

Co-author: Prof. KALKIS, Henrijs (University of Latvia)

Presenter: Mrs VEILANDE, Olga (Riga Stradins University)

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