SYNOPSIS

KEY POINT SUMMARY

OBJECTIVES

To understand the current state of ergonomics/human factors (E/HF) qualitative research within the realm of healthcare and to provide implications for future research.

Qualitative Ergonomics/Human Factors Research in Health Care: Current State and Future Directions

Valdez, R.S., McGuire, K.M., Rivera, A. J. 2017 | *Applied Ergonomics, Volume 62, Issue N/A, Pages 43-71*

Key Concepts/Context

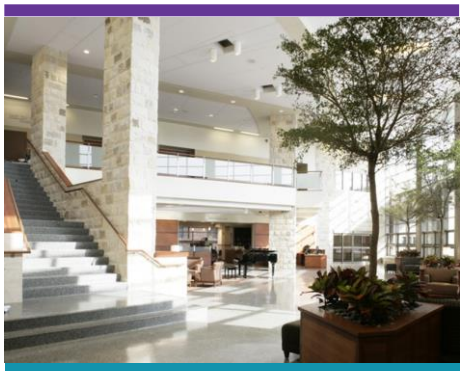
This paper presents a systematic review of studies involving the application of ergonomics/human factors (E/HF) within healthcare environments. In ergonomics, the term "systems thinking" can be broadly interpreted as a way of organizing, managing, and improving different components of a given entity in order to achieve peak efficiency and usability. For example, a systems thinking approach to emergency room design might consider how the physical layout of the environment affects the habits of staff, the location of equipment, and the general promotion of the "emergency room" concept. Since ergonomic approaches such as "systems thinking" are relatively new to the healthcare industry, the authors of this paper suggest that an overview of published E/HF research involving qualitative data is needed.

Methods

A total of 98 qualitative research papers published between 2005 and 2015 were analyzed in this systematic review. Most of these studies took place in outpatient clinics and hospitals, focused on healthcare professionals, and dealt specifically with organizational or cognitive ergonomics.

Findings

After reviewing the relevant literature, the authors of this study suggest that there remains a need for future research to enhance the use of qualitative data to advance systems thinking within healthcare environments. One-third of the papers analyzed in this study used only qualitative data while the remainder employed



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mixed methods research. The most common approaches to qualitative data collection were interviews, observations, and focus groups.

Limitations

The authors note that the scope of this review was limited only to research published within top peer-reviewed E/HF journals, thereby excluding a large amount of material from the study. The review was also limited in that it focused on the evaluation of nine specific categories. Lastly, the information within this review is derived only from the information provided in these published articles; it is possible that information relevant to qualitative approaches used within these studies was simply not included at the time of their publication.

Design Implications

Designers who are considering the use of ergonomic methods should consider consulting studies that utilize a notable amount of qualitative data; the authors of this paper suggest that qualitative data, as opposed to statistics or other quantitative data, are effective indicators of how successful a given ergonomic approach may be.