

A Note on Ergonomics for Human Factors and Healthcare

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DESCRIPTION

Human Factors and Ergonomics (HFE) methodologies have been increasingly used in healthcare delivery in a variety of scenarios during the last decade. Ergonomics is a domain which is the integration of human science field especially psychology, anatomy as well as physiology. It matches environments particularly systems, jobs to worker's mental and physical abilities. Ergonomics emphasizes job placement for the worker compared to the general practice of forcing the worker to fit the job. The goal of ergonomics is to optimize a worker's health and safety, comfort as well as efficiency. Ergonomics in healthcare is generally said to be a branch of engineering which focus on design and management of healthcare personnel's work environments. The first step in creating an ergonomically pleasant workplace is to identifying the ergonomic design.

In terms of healthcare, it is the science of overcoming the work related Musculoskeletal Disorders (MSDs). The MSDs are generally the disorders related to ligaments, muscles, joints, nerves, spinal discs etc. For the design of safe work, ergonomics research often depends on many significant factors of worker traits and skills. Muscle strength, psychophysical capacities, worker anthropometry, etc. are examples of these. Some of the biological risk factors and lifestyle risk factors are influencing MSDs. Biological risk factors includes experience of pain, muscular strength, hearing etc., and lifestyle risk factors are smoking, injuries, drugs, diseases etc.

Madsen and Anderson [1] have made a detailed analysis on the safety culture and its measurement in Danish healthcare. Another study by Hutchinson, et al. [2] on safety climate questionnaire was done specially focusing on United Kingdom Healthcare. Halligan and Zecevic described that research should be done to assess the impact of various HFE treatments on patient safety culture and atmosphere [3].

Systems thinking in healthcare are still in its infancy, and there are significant prospects for new HFE theory and practice with HFE professionals immersed in the complexity, opportunities and problems. Over the last decade, there has been a moderate and steady growth in the use of HFE approaches in healthcare

delivery across a wide range of situations. This knowledge is becoming more respected and well-known throughout the healthcare system. The challenges should not be underestimated, but nor should the benefits. Although this is not a new phenomenon, it provides a chance to rethink 1980s and 1990s safety programs based on comprehensive quality control and risk management. Furthermore, with greater concern in protecting both patients and practitioners from unintentional damage, it is becoming clear that everyday performance and efficiency advantages may be discovered through system enhancement. What began as a search for mistakes has evolved into a key tool of reducing, controlling, or at the very least good understanding spiraling healthcare costs.

According to the study done by Flin, et al. [4], this is an opportunity for HFE specialists to play a key role in preventing future systematic safety issues We believe that HFE specialists should collaborate closely with clinicians in order to comprehend the complicated world of healthcare and to develop and grow the application and knowledge of clinical HFE with an infrastructure that can sustain effective long-term relationships.

Healthcare facilities have acquired tremendous untapped potential for advantages to many organizations willing to use ergonomics in employee workspaces. Evidence supports investment in workplace ergonomics to achieve greater performance, worker happiness, a beneficial impact on recruiting and retention, and enhanced patient care quality.

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