Chapter 18

COVID-19 vs. Healthcare Information System Self-Efficacy Perception (HISSEP):
A Formidable Opponent

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ABSTRACT

Coronavirus has emphasized the importance of nursing contributions and their integral participation in interdisciplinary leadership teams providing patient care in healthcare organizations. Workforce shortages of qualified nurses in healthcare with technology skills are necessary to maintain a high level of patient care and healthcare operations. A validated instrument, Healthcare Information System Self-Efficacy Perception, was created providing a self-assessment tool for measuring an older working nurse's perception of self-efficacy of healthcare information system training within a healthcare environment. The study was the first of its kind to recognize the salient training differences that existed for older workers in a healthcare setting. The instrument was developed using a focus group, pilot study, and validated with registered nurses (RN) in a single healthcare organization. The sample (N=162) was assessed using an online survey tool. After face validity was established for HISSEP, a principal component factor analysis was conducted to determine content validity.

INTRODUCTION

The introduction of this chapter will provide a background of the healthcare establishment workforce, nurses, and the importance of the training and education strategies used to inform programs for nurses who spend much of their time on patient care. The primary drivers of the instrument development process are focused on older working nurses however, the benefits of the instrument are realized due to its flexibility of use for all ages. A successful training strategy begins with a relevant instrument. COVID-19

highlighted a deficiency of nursing staff. The need for qualified nursing staff reverberated the airwaves with the expressed need for retired, older, nurses to return to the field of nursing. Older nurses were needed to support the current overwhelmed and overworked community of healthcare providers. The chapter will provide relevant issues faced by nurses in healthcare establishments typically and extraordinary requests due to COVID-19. The older nurses based on years of knowledge and experience are gaining increased responsibilities during the pandemic to alleviate shortages of healthcare providers. The healthcare environment-focused instrument is targeted for older working nurses, age forty and over, however, the training and development strategy applies to employees of all ages.

Two-thousand and twenty began much like any other for organizations and individuals identifying their goals and objectives to accomplish and predicting what innovative projects would become successful. Healthcare organizations are no different, they evaluate which departments require focused attention from system upgrades to equipment decommissioning. Leadership demands consist of balancing the diverse types of care necessary to support the different communities and aligning healthcare staff in the appropriate proportions to maximize the economic demand and supply. One of the critical areas in a healthcare organization is the training and development of the workforce to ensure staff. It is imperative healthcare workers have the requisite education and knowledge based on regulatory requirements; awareness of policy changes to provide more focused patient care; and new innovative insight into areas that can set their workforce apart from competing healthcare choices for prospective patients. The largest percentage of the workforce for healthcare establishments are nurses. In May 2019, nurses made up 30%, over 1.8 million, of all hospital positions (Statistics, 2020). In the background of all the new year planning and goal setting prepared to make a formidable entrance was the onset of Coronavirus 2019 (COVID-19), a global pandemic that would test every healthcare professional and supporter in a race for a cure while identifying proven methods to protect the citizens of the world.

Healthcare organizations have critical service and delivery metrics which include preventative, maintenance, and emergency services for individuals in all socio-economic levels (Mantzana et al., 2007). The services offered are based on the healthcare organization's purpose, the vision of leadership, and the capacity of its workers.

To enable the delivery of services to customers, many healthcare organizations rely on information technology from initial admission records to the preparation of surgical kits used in operating rooms (Holman, 2014). "Healthcare and computer science occupations [will] lead the way in terms of projected rates of employment growth" (Neumark et al., 2011, p. 10). To support the deluge of information processing needs within healthcare many organizations rely on Healthcare Information Systems (HIS) to harness the volumes of data. "The amount of health and medical knowledge is increasing at such a phenomenal rate that we cannot hope to organize and retrieve it without HIS" (Mantzana et al., 2010, p. 10). Changing workforce dynamics and access to skilled workers, including training those who are older workers should be targeted to ensure successful acquisition of necessary skills which contribute to healthcare operations (Holman, 2014). Despite the excessive amount of money and countless working hours spent on system modernization in the healthcare sector healthcare information system projects have failed worldwide (Heeks, 2006). One reason for project failures from an organizational perspective is the lack of skilled workers to operate the system.

The population of workers in society today is diverging from traditional to non-traditional with many choosing to remain employed beyond the traditional retirement age. Reasons for this change range from supplementing retirement income to social interaction and intellectual gains. The baby boomer cohort is expected to be the largest workforce in history. Due to the increasing demand for skilled healthcare nurse

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