Study: Clinical Leadership Vital to IT Adoption and Competency

Healthcare organisations, which adopt new information technology (IT), should rely on clinical leaders with technical informatics and IT project management skills for its successful implementation, according to a study published in the International Journal of Medical Informatics. Process improvements and quality care ultimately depend on the attentive cultivation of necessary competencies, the establishment of mutual partnerships between clinical and IT professionals and the proactive execution of IT behaviours if adoption is to be successful in the long term.

The study, conducted by an international team of Australian and Norwegian researchers, involved a systematic analysis of 32 peer-reviewed research articles published between January 2000 and May 2013. The articles were extracted from the Business Source Premier, Cinahl, Embase and Medline databases, with keywords related to leadership intervention in the adoption of health information technology in provider organisations. Data gleaned from the relevant articles were then assessed according to Avgar et al.'s health IT adoption framework and Bassellier et al.'s IT competence framework. In the end, clear associations were found between clinical leaders who value IT implementation and positive organisational outcomes. The findings are important for the education, recruitment and training of clinical managers and directors.

IT Competency Cultivation

As healthcare providers are challenged by increasing demands for equitable and efficient care of an ageing population, computerised methods are replacing paper-based ones for physician order entries, imaging, drug management and clinical communication. The latest enterprise-wide systems have the potential to combine administrative and clinical IT systems for optimal deployment of resources and coordination of care processes.

One of the factors which influences a healthcare organisation's successful adoption of IT is its leadership's IT competence, comprising the complementary competencies of both business and IT leaders. The researchers found that leaders who possess technical health IT expertise at the outset are most likely to be committed to the use of information technology for improving processes and, ultimately, care quality. Their confidence in the value of IT motivates them to remain stable through periods of adversity as the technology is adopted. Prior experience with IT project management also contributes to success, making these leaders more likely to partner with IT professionals for mutual benefit.

Mutual Partnerships Between Clinicians and IT Professionals

Proactive partnership with IT professionals was found to positively influence IT adoption in healthcare organisations. Rather than relying exclusively on external vendors or IT departments to implement technology-related changes in a clinical setting, communication between clinical and IT experts allow for a beneficial exchange of knowledge about existing work processes. One article cited in the study surveyed 164 hospitals and found a significant positive influence on IT adoption when an organisation's top management team included a Chief Information Officer.

Of course, leadership is not limited to the upper ranks of a healthcare entity. The adoption of new technology can be problematic for employees in any organisation, but the potential for adverse events in a clinical setting can extend to patients. This makes it especially important for leaders throughout the clinical setting to guide behaviour among staff through their own proactive conduct.

Proactive IT Behaviours

A leader's attitude toward healthcare IT adoption reflects and influences the intentions of the organisation as a whole, with proactive behaviours key to success. The study's authors classified proactive behaviours into seven categories associated with positive outcomes: 1) clear communication of visions and goals, 2) provision of leadership support, 3) establishment of a governance structure, 4) training, 5) identification and appointment of champions, 6) work process changes, and 7) follow-up. These categories are discussed in more detail for clarity.

A leaders' communication of the organisation's vision for IT adoption encompasses several specific types of behaviour, ranging from the verbal establishment of a long-term commitment with concrete expectations, milestones and accountabilities, to providing access to literature and conferences. Leadership support might involve allocation of sufficient resources and the hands-on transformation of individuals into team members.

In the realm of proactive IT behaviours, governance structure refers to a layered framework of committees, which involve both clinical staff and IT professionals, with clear leadership roles and multidisciplinary teamwork. Training would incorporate not only team activities, but personalised training for individual team members. The identification of physician champions and other frontline leaders also demonstrates proactive behaviour.

The adoption of new technology can be problematic for employees in any organisation, but the potential adverse events in a clinical setting can

extend to patients. To guard against this, work process changes must consider redesigned procedures, which align with existing distributions of power between groups and professions. Finally, follow-up must ensure user involvement at an individual and team level, with clinician engagement. Resistance to change and system setbacks must be met with a reiterated commitment to the value of IT adoption for the healthcare organisation and the patients they serve.

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