Nursing Informatics Competencies for Nurse Leaders/Managers: A Delphi Study

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The Organization of Nurse Leaders (MA&RI) Board, Council structure and Partners Healthcare Systems Institutional Review Board approved this manager. Simpson, the “State of Contemporary Informatics presented at AONE by Dr. Roy competencies relevant to their work.[4] Innovation is critical, necessitating the attainment of informatics decisions related to health information technology (HIT) in their work. 2. The research question was, “What are the nursing informatics competencies for the initial Delphi study used to exclude items with CVI >.80. Psychometric Testing was out of scope for the initial Delphi study. The highest number of participants were from either an Academic Medical Center (Round 1: n=16, Round 2: n=15, Round 3: n=13), had completed at least a Master’s degree (Round 1: n=24, Round 2: n=21, Round 3: n=23), and had an average or above average knowledge of HIT compared to their peers (Round 1: n=29, Round 2: n=25, Round 3: n=39). Most reported that their HIT training was ‘on the job’ (Round 1: n=33, Round 2: n=22, Round 3: n=40). The initial survey with 108 competencies was reduced to 74 after Round 3 (Figure 1). Eighteen competencies were borderline (CVI <.80) and were given further consideration for inclusion in subsequent work. The 74 competencies retained were from the 15 categories (Figure 2).

Introduction / Background

In today’s high-tech environment, all leaders in the healthcare field encounter decisions related to health information technology (HIT) in their organizations. Nurse leaders’ ability to make informed strategic and operational decisions related to HIT adoption, implementation, and evaluation is critical, necessitating the attainment of informatics competencies relevant to their work.[1] The purpose of this Delphi Study was to seek the opinions of Nursing Leadership about Health Information Technology competencies critical for the Nurse Leader. Westra and Delaney completed similar work in 2008.[2] This study expands on recent research on the “State of Contemporary Informatics presented at AONE by Dr. Roy Simpson.[3] We aimed to understand the nursing informatics competencies perceived as relevant and required by today’s nursing leader and/or manager.

Research Question

The research question was, “What are the nursing informatics competencies required for today’s nursing leader and/or manager?”

Partners Healthcare Systems Institutional Review Board approved this project.

Methodology

The Organization of Nurse Leaders (MA&RI) Board, Council structure and membership were queried using the Delphi method. There were three rounds of data collection. Data analysis replicated the methods used by Westra and Delaney and utilized Polit and Beck’s Content Validity Index (CVI).[4] Criteria to retain a competency was a CVI >.80. Percent that was used to analyze differences among groups. Finally, qualitative content analysis of participants comments was used to review ‘borderline’ items to determine if they should be retained but was not used to exclude items with CVI >.80. Psychometric Testing was out of scope for the initial Delphi study.

Results

There were three rounds of survey’s (Round 1: n=34, Round 2: n=26, Round 3: n=41). The highest number of participants were from either an Academic Medical Center (Round 1: n=16, Round 2: n=9, Round 3: n=11) or a Community Hospital (Round 1: n=17, Round 2: n=10, Round 3: n=15). The participants were in an Executive role (Round 1: n=18, Round 2: n=16, Round 3: n=13), had completed at least a Master’s degree (Round 1: n=24, Round 2: n=21, Round 3: n=23), and had an average or above average knowledge of HIT because of the level of specificity, it can be used to close an education gap as we look to support on-going professional education, optimize HIT to improve patient care outcomes and enhance the patient experience.

Top 15 Nursing Informatics Competencies

The top 15 final competencies – displayed here ranked by priority. Overall there were 74 competencies that had a CVI >.80. Psychometric Testing was out of scope for the initial Delphi study.

Discussion/ Conclusions

This study identified important competencies to Nurse leaders and Nurse managers. This information can be used to fill the education and skill gap as we look to support on-going professional education, optimize HIT to improve patient care outcomes and enhance the patient experience.

Practice Implications

This information can be used for program development as well as curriculum development for Nurse Leaders and Nurse Managers. Also, because of the level of specificity, it can be used to close an education gap as we look to support on-going professional education, optimize HIT to improve patient care outcomes and enhance the patient experience.

References


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Participant Demographics

Results

Figure 1: NI Competencies for the Nurse Leader/ Manager

Figure 2. Categories of Competencies Retained in Round 3 Results (CVI >.80)

Final Competencies Retained Ranked by Priority

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<thead>
<tr>
<th>Competency</th>
<th>Category</th>
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<tr>
<td>Quality</td>
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<td>37</td>
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<td>Risk Management</td>
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