



Summer Institute in Nursing Informatics 2019
Poster Presentation

To measure the informatics competency of clinical nurses in medical centers of Fujian, China

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Objectives: A validated home-made model of nursing informatics competencies for clinical nurses was used to measure the current status of informatics competency for clinical nurses in the medical centers of Fujian, China, which sits across Taiwan Strait with a population of 37.9 million people and ranked as the 10th wealthy province in terms of Gross Domestic Product (GDP) in China. **Methods:** Six medical centers from three metropolitan cities, Xiamen, Quanzhou and Fuzhou, were randomly selected and 652 nurses were further randomly selected for online survey. The home-made model of informatics competency model was developed in 2018 by acquiring knowledge from six experienced informatics nurses of medical centers, benchmarked in the hospital electronic health record (EHR) and Nursing Information System (NIS), in Mainland China and Taiwan. It is composed of 37 attributes, such as Use of Productivity Software, Familiarity with NIS Operation, Doing Scientific Study, etc., out of three categories, Computer Skill, Application Skill, and Information Skill. Purpose and contents of survey were explained to the subjects by same well trained staff. 5-point Likert scale was used as scale, 5 Very Competent and 1 Very Incompetent. Survey was made anonymously. **Results:** Overall, the average scores for the Computer Skill, Application Skill, and Information Skill were 2.7 (SD 0.67), 3.14 (0.63), and 2.93(0.64). Subjects did not feel enough competent in all three dimensions but relatively, felt better in Application Skill and more incompetent in Computer Skill. In terms of individual items, the top ten more competent attributes were: 1) to Secure Patient Safety 3.99, 2) Implementation Capacity 3.63, 3) Knowledge about Productivity Software, 4) Knowledge about Communication Terms 3.27, 5) Nursing Informatics Education 3.22, 6) Information System Functions and Structures 3.2, 7) Information Security 3.17, 8) Information Strategies and Policies 3.14, 9) Acquisition of Information and Use 3.14, and 10) Informatics-based Problem Solving Capability 3.13. On the contrary, the top most incompetent attributes were: 1) Programming 1.97, 2) Interface Design 1.99, 3) System Development 2.28, 4) Selection of Quality Hardware and Software 2.39, 5) Website Skill 2.44, 6) Computer Terminology 2.58, 7) Hardware and Software Operation and Maintenance 2.64, 8) Assessment of Development Environment Capability 2.69, 9) Data Acquisition Technique 2.7, and 10) Nursing Information System Development Policies 2.73. **Discussion and Conclusion:** It is not a surprise that overall, nurses felt not very competent in nursing informatics. Among categories of informatics capabilities, nurses showed most competent in application skill and most incompetent in computer skill. The former capability is more related to nurse's nature of problem solving and high implementation capacity. The results showed we need to enhance the informatics competency for our nurses, especially in computer skills such as programming and system development. Key words: nursing informatics competency survey, nursing informatics competency, computer skill, application skill, information skill