Nursing Informatic Competencies

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Background

- Registered nurses (RN) are increasingly dependent on health information technology which include electronic healthcare records (EHR)s, point of care devices, mobile computing devices (smartphones, tablets, etc.) and telehealth.
- This increased use drives the need for the RNs to be knowledgeable and competent in informatics.
- Literature was reviewed for assessment tools.

Setting and Method

- Permission was obtained to use and modify the Self-Assessment of Informatics Competency Scale for Health Professionals (SAICS).
- RN students were enrolled in online undergraduate or graduate nursing informatics class.
- Participation was voluntary. Two students asked not to participate in the study.
- IRB approval was granted. Reference # 2023-013 NH.
- Data was analyzed via quantitative and qualitative methods.

Purpose

Assessment of RNs perceptions of competency growth in nursing informatics.

Evaluation of assignments to support competency-based education.

Self-Assessment of Informatics Competency Scale for Health Professionals

1. Demonstrate basic technology skills (e.g., turn computer off and on, load paper, change toner, remove paper jams, print documents)

2. Use e-mail

3. Conduct on-line literature searches (e.g., PubMed)

4. Use applications to manage aggregated data (e.g., excel, database, statistical software)

5. Recognize that the computer is only a tool to provide better [discipline name here] care and that there are human functions that cannot be performed by computer

6. Recognize the value of clinician involvement in the design, selection, implementation, and evaluation of applications, systems in health care

7. Extract data from clinical data sets (e.g., Clinical data warehouse, Minimum Data Set)

8. Incorporate structured languages into practice (e.g., ICD9 or 10 codes, CPT codes, diagnoses codes)

9. Describe ways to protect data

10. Assess accuracy of health information on the Internet

11. Identify, evaluate, and apply the most relevant information

12. Use application to document patient care

13. Identify, evaluate, and use electronic patient education materials appropriate to language and literacy level at the point of care

14. Use decision support systems, expert systems, and aids for differential diagnosis

15. Act as an advocate of system users including patients and colleagues

16. Participate as a content expert to evaluate information and assist others in developing information structures and systems to promote their area of [discipline name here] practice

17. Applies monitoring system appropriately according to the data needed

18. Describe general applications/systems to support clinical care

19. Add up the total of your answers for items 1-18 and record the value **AND** compare your post test score to your pretest score

20. Identify two (2) Informatics Competencies for which you experienced the most growth in Informatics knowledge and skills and provide examples. (Share examples)

Proposed Project

- The SAICS tool was used in NURS 333 Nursing Informatics for undergraduate students and NURS 605 Healthcare Informatics.
- Students completed the SAICS at the beginning and the end of the course.
- The SAICS was a Likert scale from 0 (not competent), 1 (somewhat competent), 2 (competent), 3 (proficient) and 4 (expert).
- The competencies were divided into three section; basic computer skills, role, and applied computer skills: clinical informatics.
- On the post we added a two items; a total of both assessments and the two competencies of the most growth and provide examples.

Implications for Teaching

- Assignments and learning activities supported the growth in nursing informatics.
- Graduate nursing students were able to align course objectives with the competencies being measured.
- There was a clear connection between the classroom and the workplace.
- Nursing Education is in the transition towards competency-based education, the Self-Assessment of Informatics Competency Scale for Health Professionals Survey could be one method to measure competency within nursing informatics.