THE EVALUATION OF INSTRUCTOR COMPETENCY IN INFORMATICS

by

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Background

As of 2022, technology is being integrated into hospitals and the curriculum of nursing programs across the United States. In 2021, the AACN released new essentials for core competencies for nursing education. This integration; requires nursing faculty to be competent in technology and informatics to effectively teach the material to students. The National League of Nursing Has created a vision for nursing calculations on their changing role in maintaining education about nursing informatics in the class curriculum. However, a common complaint for both students and faculty is that nursing faculty are not knowledgeable in nursing informatics.

There are barriers when nursing faculty try to pursue the integration of informatics. Some include the faculty not receiving their education on informatics, the lack of technology in the classroom, and the lack of funding. Technology plays an important role in the career of nursing and is being used consistently during patient interactions. If students are not properly trained by faculty, then the next generation of nurses will not be prepared for this patient-nurse integration.

Informatics is becoming a rising necessity in the field of nursing, meaning having faculty competent with the material is critical. Students within baccalaureate programs must receive the education early on to be successful in their careers; however, there has been evidence to prove that faculty do not feel confident in their informatics competency.

Purpose

The purpose of this integrative review is to summarize the evidence of the nursing faculty's knowledge, competency, and attitudes regarding the benefit and use of nursing informatics in the baccalaureate programs.

It will give a baseline of nursing faculties competency in nursing informatics, and perhaps give insight on how to aid nursing faculty and future baccalaureate students in learning and adapting to the material.

Methodology

This integrative review, it was conducted following the PRISMA 2020 guidelines. The inclusion criteria included being published in English, internationally published, and within academic settings. The exclusion criteria were published within nonacademic settings and conference proceedings. To search, the key terms used were nursing informatics, informatics competency, and nursing faculty. Databases that were used were the Cumulative Index of Nursing and Allied Health Literature (CINAHL), MedLine via PubMed, and ProQuest. From this, the first search yielded 125 articles. Then, these articles' levels of evidence and quality were analyzed using Joanna Briggs Institute Critical Appraisal Tool. Any articles that did not align with nursing informatics were removed, allowing 20 articles to remain for screening. Post review, 14 did not meet the criteria for the review, leaving 6 total articles.

Results

Within the literature, four common themes appeared. The first theme is younger faculty within DNP (Doctor of Nursing Practice) programs know more about informatics than older faculty. They also have an easier time navigating technology. This is a common theme today, with the older faults of many institutions failing to adapt to newer technology within their working field.

The second theme is a lack of time to learn the necessary skills to teach the material to students appropriately. The faculty report that the time needed to adjust to new standards is not

adequate to teach them enough to students. If they do not know what they are doing, then it cannot be expected of them to pass down their knowledge.

Third is lack of experience. The field of experience is ever-changing, and if a teacher finds himself teaching, then they may not be in an environment to see these changes. Education has remained stagnant in informatics, as they are not at the forefront of exposure. No exposure means no experience. No experience means no expertise to draw from to aid in the direction of new skills.

Finally, there is a need for a policy change to integrate informatics further into education programs. The current policy has little direction on how to do so, only that informatics needs to be integrated. It provides reasons that informatics should be included, but again not how or why.

Limitations

Limitations of this integrative review are the lack of non-English studies and the lack of previous material written about nursing informatics. The lack of non-English studies cuts off any publications from other countries where English is not the primary language. This included translations of original works into English. This cut off literature from Asia and some Eastern European countries.

There is also a lack of previous literature, with a major gap occurring during the Covid-19 pandemic. There is some literature dating to the early 2000s; however, due to the nature of informatics being a fast-paced phenomenon, the question of relevance is brought up. Nursing informatics in 2006, for example, would be considered completely different from nursing informatics in 2023.

Discussion

One of the most significant articles of those yielded from the criteria was from Bove et al.

(2023), where they created a survey using SANICs software and spread it amongst the faculty of

the University of North Carolina Wilmington. The topics they questioned the faculty about were

knowledge, resources, and competency of skills. The survey responses showed general ability

and competency in all fields but showed less in higher-level informatics skills. It also reported

that faculty found barriers to teaching and integrating informatics into their courses. These

included technological issues, lack of knowledge, and resources. There were also reports of

confusion and lack of student engagement. (Bove et al., 2023)

Years of experience with nursing informatics were also found to be a predictor of the

ability and level of competency in the nursing faculty. While the usage of the faculty's

technology did not have great variance over time, their attitude toward it varied on the age of the

faculty member. newer, younger faculty members were more likely to have positive attitudes

about technology and informatics over experienced faculty. Positive attitudes were defined by

online learning, which positively affects students' ability to learn the material effectively. It was

also found that in 2015, the highest-ranking competency regardless of age was communication

technology. This could be considered consistent with the era the world is actively experiencing

now, where the ability to communicate over technological means in daily life remains of high

importance. (Kotcherlakota et al., 2017)

What was found in several of the results was the need for further education within the

faculty and policy changes on how to do so. Nsouli & Vlachopoulos (2021) proposed a way to

encourage this was to have the administrative side of the faculty increase their usage of

informatics to promote acceptance. As it becomes more integrated on multiple sides of the institution have this exposure, more nursing faculty will use informatics at a higher rate. This will then introduce more necessary training on the material. (Nsouli & Vlachopoulos, 2021)

Within the DNP programs across the United States, it was found that out of 112 programs, 93.7% met the American Association of Colleges of Nursing (AACN) criteria for the inclusion of informatics; however, only 73.4% had specifics courses on nursing informatics, and 26.6% did not. 80.6% of those that did not report that they integrated informatics elsewhere in their curriculums. (Fulton et al., 2014) Policymakers can make use of these statistics to create a greater impact on these programs, and hopefully create a trickle-down effect on baccalaureate programs. This would create the next generation of nurses who are competent in nursing informatics without having to complete secondary education.

When creating a training module to improve nurse educators' overall ability with technology, a pre-test, and post-test were used to evaluate the module's effectiveness. They found that the module was effective in aiding the nurse educator's competency, indicating that further, informatics-specific training would help create an appropriate nurse educator force to back the integration within a baccalaureate program. (Rajalahti et al., 2014)

Conclusions

In conclusion, there is much to be done in the realm of nursing informatics. In the future, the plan is to complete a survey using SANICs software, similar to that used at the University of North Carolina Wilmington, involving the East Carolina University College of Nursing Faculty in the 2023-2024 school year. This will inform us where the university stands in terms of

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informatics competencies. It also shows the areas in which the university needs to place more

work to be up to current and future national standards.

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