INTRODUCTION

• It is important to understand the difference between the concept of Nursing Informatics (NI) and the practice of NI.

• As a practice, NI is a relatively new sub-specialty of nursing, defined as a specialty that integrates nursing science, computer science and information science.1

• As a concept, NI is a collaboration between often disparate departments to enhance patient outcomes and improve quality of care, and a way of processing information for dissemination.2,3

• NI enhances the collaboration between clinicians, computer scientists, cognitive and developmental psychologists, engineers, medical informaticists, physicians, knowledge engineers and the vendor community.4

• The purpose of this concept analysis is to provide an understanding of NI as a concept, and to describe the body of knowledge that NI encompasses.

METHODS

• PubMed and CINAHL databases were searched for articles in English, from 2005 to 2016, with the following keywords: nursing, informatics, specialist, and healthcare.

• Twenty-two articles and seven textbooks met the inclusion criteria.

• The Walker and Avant method of analyzing concepts was used in creating the model attributes and conceptual definitions shown in Figure 1 and Table 1.5

CONCEPTUAL DEFINITIONS

Table 1. Conceptual Definitions and Required Knowledge

<table>
<thead>
<tr>
<th>Defining Attribute</th>
<th>Knowledge Must Include Aspects of:</th>
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<tbody>
<tr>
<td>Nursing Science</td>
<td>Nursing and Quality Improvement: nursing workflow, patient advocacy, care delivery, critical thinking, inter-professional collaboration and overall nursing processes.5</td>
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<tr>
<td>Information Science</td>
<td>Information Structure and Processing: legitimate access to and use of data, information, and knowledge.3</td>
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<tr>
<td>Computer Science</td>
<td>Technology: Application of computer technology to all fields of nursing – nursing service, nursing education and nursing research.7</td>
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<tr>
<td>Cognitive Science</td>
<td>Communication and Learning: Using nursing science and technology to enhance the pathway that data take to become knowledge and improve patient care; and the effect of NI on learning environments, inter-professional collaboration, patient care settings, strategic planning, patient satisfaction and patient outcomes.8</td>
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DEFINING ATTRIBUTES

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CONCLUSIONS

• Nursing Informatics (NI) can and has impacted most, if not all, aspects of patient care within healthcare organizations.

• Investigating the impact of NI on collaboration, patient outcomes, and clinical data utilization should be the next steps in solidifying the concept of NI.

REFERENCES


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