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**Phenomenon of Interest**

The phenomenon explored was clinical reasoning. Clinical reasoning is a process nurses use to make clinical judgments and includes both a deliberate process and practical reasoning (Tanner, 2006). The deliberate process includes creating alternative judgments, comparing them to the evidence and making the most appropriate decision. Practical reasoning includes the recognition of a pattern, having an intuitive clinical awareness and responding without apparent forethought.

Clinical reasoning is closely related to the concepts of decision making, problem solving, and clinical judgment (Simmons, 2010). Clinical reasoning distinguishes itself from these other phenomena by focusing on the cognitive process prior to decision making (Simmons, 2010). This characteristic separates the professional nurse from ancillary healthcare workers.

Patricia Benner defined five skill categories of practice according to reasoning skills and theoretical, intuitive, and experiential knowledge: novice, advanced beginner, competent, proficient, and expert nurse (Benner, 1984). Benner’s work supports the foundation for understanding clinical reasoning and experience. A student nurse would be considered a novice nurse or a beginner with little or no experience. An expert nurse has a better understanding of clinical situations, recognizes patterns in patient responses, uses intuition and heuristics when making judgments, and is able to quickly respond to a change in patient status (Simmons, Lanuza, Fonteyn, Hicks, & Holm, 2003). Clinical reasoning is a journey from novice to expert, from inexperience to skilled, from questioning to confident.

Clinical reasoning includes gathering information, assimilating and processing information, retrieving and discarding information, evaluating relevant evidence, making professional judgments and analyzing clinical decisions (Simmons et al., 2003).

Gathering information occurs through interviews with patients, physical assessments, chart reviews, and consultations with interdisciplinary members. Problem solving techniques can be acquired by combining this information with prior knowledge amassed from textbooks, reference material, and instruction. This gathering of information contributes to problem solving skills and the development of critical thinking (Comer, 2005).

Assimilation and processing of information is a necessary component of clinical reasoning. Assimilating the information combines the information learned with knowledge previously obtained. This knowledge is then processed into a logical thought.

Retrieving and discarding information helps the health care provider determine which information is important and fits with the current scenario. All previous knowledge must be filtered with only pertinent information getting further scrutiny. Intuition is said to be a “funny suspicion, and just experience, perhaps a remembering process” and “something you’ve experienced before, and it’s there in your mind but you don’t know what it is. Yet it’s there, something” (Cioffi, 1997, p. 204). Intuition may be information that needs to be retrieved from the subconscious mind.

Evaluating relevant evidence includes applying the clinical data and clinical knowledge to the signs and symptoms of the patient. Recalling retained information and processing relevant, current information develops clinical reasoning skills throughout the novice to expert journey.

Making a professional judgment after inductive logic is used to simultaneously assemble and evaluate information and supporting evidence (Rosenzweig, Krawec, & Montague, 2011).

Analyzing the clinical decision is an invaluable tool for further learning and managing future clinical scenarios.

**Exemplary Case**

The following example demonstrates the significant difference in clinical reasoning between the novice and expert nurse.

A student nurse is working in the intensive care unit and is assigned a patient with an intracranial pressure monitor (ICP). The student notices the ICP monitor parameters are outside the stated normal. She decides to take the patient’s vital signs and then anxiously informs the instructor. The instructor, aware that the student is a novice, seizes the educational opportunity and challenges the student to think more critically. The instructor asks questions of the student that provokes deeper thinking. What other vital signs should be checked? What signs and symptoms should we look for? Does the patient look different? What do you think you should do next? These thought provoking questions allow the student to explore previously learned information in relation to the current situation.

As an experienced nurse, the instructor knew to automatically obtain signs and symptoms of neurological changes, record intake and output, and notify the physician. Previous experience, knowledge and a gut feeling drove the instructor to teach the student while providing expert clinical care to the patient.

The think aloud approach was used by the instructor and allowed this student to retrieve and gather data from their stored memory, assimilate and process the data in making a professional judgment and analyze the situation (Norman, 2006). Utilizing think aloud provided the instructor an assessment of the student’s knowledge and the ability to instill confidence. Open ended questions and prompting along with the think aloud approach fosters learning and development of clinical reasoning skills for the student. The initial observation led to a significant educational opportunity for the student and a good clinical outcome for the patient. This type of recurring experience is the foundation for clinical reasoning skills in the novice student as they journey to expert status.

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