Virtual Simulation: Impact on Clinical Judgment

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The need for newly licensed nurses to safely manage multiple complex patients requires strong clinical judgment skills to appropriately prioritize and delegate (Bittner & Gravlin, 2009). Direct patient care experiences in acute care settings are the typical way nursing students learn clinical judgment. However, these clinical experiences do not always provide an opportunity to collaborate, critical think, or make independent decisions that will improve patient outcomes (Lippincott Nursing Education, 2018). The most recent data from the American Association of Colleges of Nursing suggests that 80,407 qualified applicants were not admitted to baccalaureate and graduate nursing programs with insufficient clinical sites a contributing factor (2020). The COVID-19 pandemic has significantly limited direct patient care clinical experiences for nursing students throughout the U.S. (Logue et al., 2021). There is an urgent need to develop teaching-learning practices that will support the development of clinical judgment as both an augment and substitution for direct care clinicals (Thobaity & Alshammari, 2020).

This study investigated the impact of a virtual simulation (VS) (Sentinel U's Patient Management and Delegation and Prioritization of Care) on clinical judgment in a sample of pre-licensure BSN students. VS utilizes experiential learning as identified by Kolb's Experiential Learning Theory (1984) to expose the learner to a new experience and requires the student to reflect, thereby integrating the learning into their knowledge bank (McLeod, 2017). As learners reflect on their decisions and reasoning, they integrate their previous experiences and the new knowledge gained through the VS.

Design

Using a one-group, repeated measures design, a paired-samples t-test was used to measure the change in perceived clinical judgment pre to post-VS intervention. The Skalsky Clinical Judgment Scale measures the construct using a four-point Likert Scale, with ten questions, which include assessing perceived abilities in prioritization, delegation, and communication.

Major Findings

There was a statistically significant increase in perceived clinical judgment scores from pre-intervention (VS) ($M = 32.17$, $SD = 4.178$) to post-intervention (VS) ($M = 34.10$, $SD = 4.992$), $t(41) = 2.832$, $p < .007$ (two-tailed). The mean increased in perceived clinical judgment scores was 1.929 with a 95%.

Discussion

The positive results suggest that VS may be useful to support teaching-learning practices related to clinical judgment development. Perceived increases in clinical judgment may make students more confident and encourage them to practice skills further. Further research is needed to objectively measure clinical reasoning and resultant patient outcomes that result from the use of VS as a teaching-learning strategy.

Implications for Nursing the Nursing Profession

Recent evidence suggests that only 10% of newly licensed nurses score within an acceptable competency range using a performance-based (Kavanagh & Sharpnack, 2021). The most recent practice analyses by the National Council of States Boards of Nursing suggest that newly licensed RNs are increasingly required to make more complex clinical decisions (2015, 2018). COVID-19 exacerbated existing pre-licensure nursing education challenges by further limiting already scarce clinical practicum sites (Dewart et al., 2020). VS may be a useful addition to direct patient care and high fidelity human patient simulation to learn clinical reasoning skills. VS may be helpful as an additional strategy in addressing the critical nationwide shortage of clinical practicum sites. Also, VS may bridge the gap in clinical learning experiences during times when other opportunities may not exist, such as experienced during the COVID-19 pandemic and in times of emergencies and natural disasters.

VS may likewise prove beneficial for skill development or assessment within clinical agency orientation and continuing competency efforts. Similar to its use in the academic environment, VS within practice and continuing education provides a safe environment to make decisions without potential harm to patients (Verkuyl et al., 2019). In conclusion, given the evolving technology that underpins VS and its increasing fidelity, the interest in and application of VS in academic and practice environments will likely increase. Nurse leaders will be challenged to implement VS in evidence-based ways and monitor and measure outcomes to assure its value.

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