Nursing Simulation: It's Not Just For Skills Anymore

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Introduction and History

Ever since "Mrs. Chase" in 1911 nursing education has utilized the mannequin for skills (Herrmann, 2008). The earliest mannequins in nursing were used for transfers, positioning, and other non-invasive skills & learning activities. Following the lead of medicine, especially anesthesiology (Jeffries, 2012), they were now being used for the training of nurses instead of doctors. The mannequins used were very low fidelity and were literally dolls, but quickly became useful for CPR training, skills demonstrations, practice, and testing while maintaining the all important patient safety (Ulrich & Mancini, 2014). They were often just skills trainers or partial torsos with an orifice/lumen to accommodate a tube's insertion.

Computers and simulation changed that. This time, following the lead of the airline industry, aeronautics, and the military, computerized nursing simulation moved away from the screen and would begin to incorporate the mannequin in the role of the patient. Again, with patient safety as the ultimate goal, education of nurses was the desired outcome (Ulrich & Mancini, 2014). The fidelity level of the mannequins began to increase, but the activities were often still basic skills instruction.

Problem and Challenge

Even with the higher fidelity mannequins and the technological advance-ment of simulation many nursing instructors remain at the basic skills level of simulation because that is how they learned and where they are comfortable. Tradition is ingrained and often difficult to overcome. Simulation must move beyond "Mrs. Chase".

Methodology

The SU Nursing Care of Children & Adolescents course utilizes 3 days of simulation in a 12 day clinical rotation. Twenty-five percent (and up to 50%) of clinical being simulation maintains a consistent level of clinical education & preparation and maintains competency for the licensure exam & for employment (Hayden, Smiley, Alexander, Kardong-Edgren, & Jeffries, 2014). The simulations increase in complexity as the semester progresses. The simulations have basic skills, but go far beyond. The simulations, scenarios, nurse's reports, and physician's orders are designed to introduce questions and situations that will demand interdisciplinary collaboration (Jeffries, 2012), reinforcement of the knowledge of medications using available resources, setting priorities, developing leadership skills, building team work (Ulrich & Mancini, 2014), delegating interventions, and the application of critical thinking. The simulations are designed to be a learning experience and not an assessment of the student. By removing instructor grading the stress level is diminished and learning increases in a more positive environment.

Implementation

The table below shows examples of simulation strategies (situation, tasks, orders, etc.) used with students within the 3 simulations to reach a higher level of learning while still utilizing basic skills of assessment, communication, IV maintenance, medication administration, and vital signs.

	Simulation Strategy	Higher Level Of Learning
1	Medication order error (a cross-allergy)	Collaboration, Use of resources, Med knowledge
2	Multiple orders (too many for time limit)	Prioritizing, Teamwork
3	Non-nursing orders (respiratory, lab, radiology)	Collaboration, Delegation
4	Multiple stat orders (stat med, stat CXR, stat labs)	Prioritizing, Collaboration, Teamwork
5	Incomplete medication order (unknown/ missing med dose and only a partial name)	Resources, Critical thinking
6	Unknown treatment (O2 by %, not L/min)	Resources, Collaboration
7	Pt's failure to respond (declining vital signs)	Critical thinking
8	Various levels of nurses (primary, float, med nurses)	Delegation, Teamwork, Leadership
9	Indicators of child abuse (bruises, hx of fractures, report, injury doesn't match explanation)	Critical thinking, Use of resources, Communication, Collaboration

Student Feedback/ Comments

❖ "simulations were very helpful because it allowed us to make mistakes … and learn from our mistakes…"
❖ "…were very helpful and I actually learned quite a bit from them and [the debriefings]. I know that I will carry those lessons with me throughout my nursing career."
❖ "in the simulation room with only my team and no instructor… it forced me to use my critical thinking skills and resources."
❖ "I had to collaborate with the doctor, pharmacist, the lab, radiology dept, the social worker, and the respiratory techs. I never got that experience at hospital clinicals."
❖ "More simulations, please!"

References

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