PATIENT SIMULATORS IN NURSING CURRICULUM:
SUCCESSFUL IMPLEMENTATION

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**Purposes/Aims:** To describe necessary components for successfully integrating high-fidelity simulation into undergraduate nursing curriculum.

**Rationale/Background:** Simulation in practice labs has been used in nursing education for many years, yet high-fidelity patient simulators have only been introduced within the past ten years. Advantages cited in the literature include focusing on specific aspects of patient situations, presenting serious/uncommon situations, developing critical thinking/problem solving, practicing in a safe environment. Disadvantages include the lack of realism of the simulator, the expense of the high-fidelity computer-based simulators, as well as faculty hesitation to become involved in teaching using simulation. In fact, many nursing programs have purchased patient simulators but find integration into curriculum difficult. Recent evidence provides insights into success with simulation with introduction of a simulation model (Jefferies, 2006), discussion of best practices (Brenner, Aduddell, Bennett, & VanGeest, 2006), and noting of lessons learned (Childs & Steeples, 2006).

**Description of the Undertaking:** Even though a Human Patient Simulator (HPS) by Medical Education Technology Incorporated (METI) was purchased, there was no plan in place for integration into the curriculum. The nursing lab coordinator was asked to begin using the simulator. Consequently, she attended a conference to learn about possible uses of the HPS. Through networking with other nursing faculty using the simulator, several simple simulation scenarios were shared and developed. Registered nurses were hired as teaching assistants to facilitate HPS sessions. Student workers were hired, taught to run the HPS, set-up scenarios and assist during the scenarios. The initial scenarios were used with groups of volunteer students and revisions implemented. After 2 semesters, the lab coordinator met with the medical/surgical course coordinator to determine which scenarios were appropriate for the course. The existing psychomotor skill labs were then re-organized and front-loaded. Remaining lab hours were re-allocated so students could be involved in HPS scenarios five times (50 minute sessions) across the semester. After the medical/surgical course simulations were started, the lab coordinator met with the next semester coordinator and 2 simulations for women's health were developed and integrated into the curriculum. Later, during the advanced medical/surgical/critical care course, 2 code situations were developed so students could experience the fast-paced cardiac and/or respiratory arrest scenarios. During Fall semester 2006, additional scenarios (birthing) using Noelle (produced by Gaumard) and two pediatric scenarios using the PediaSIM-ECS (produced by METI) were implemented. Throughout this integration, resources of supplies (to facilitate the realism) and personnel (registered nurses working as teaching assistants, faculty, and student workers who run the simulator) as well as adequate space were provided by the college.

**Outcomes:** Students now experience 11-12 different patient scenarios through the baccalaureate curriculum. Student satisfaction is high and students ask for more simulation experiences. Success of this integration was facilitated through the lab coordinator, a designated simulation expert.

**Conclusions/recommendations:** Successful implementation of high-fidelity patient simulation into nursing curriculum includes: 1) a simulation expert or manager who oversees and is a resource to others, 2) attendance (by expert/manager) at conferences to facilitate networking with others who use patient simulators, 3) curriculum flexibility allowing adequate time/support, 4) resources (simulators, supplies, personnel, and space), and 5) creativity.