

Advancing interprofessional patient safety education for medical, nursing, and pharmacy learners during clinical rotations

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Abstract

Background: Medical errors are common and can lead to adverse events and patient death. Health professionals must work within interdisciplinary teams to provide safe and effective care to patients, yet current curricula are lacking with regards to interprofessional education and patient safety.

Methods: We describe the development and implementation of a course, “*Interprofessional Approach to Patient Safety in the ICU*,” aimed at medical, nursing, and pharmacy learners during their clinical training at a large academic medical center. The course objectives were based on core competencies for interprofessional education and patient safety. The course was offered as recurring 3 one-hour sessions, including case-based discussions and a mock root cause analysis (RCA).

Results: 43 students attended at least one session over a 7-month period. All students reported a high level of readiness for interprofessional learning, indicating an interest in interprofessional opportunities. In general, understanding and knowledge of the 4 competency domains in patient safety was low before the course and 100% of students reported an increase in knowledge in these domains after participating in the course.

Background

- Medical errors in healthcare are common, lead to adverse events and contribute to 400,000 patient deaths annually due to preventable harm.^{1,2}
- Patient safety is an increasing focus of healthcare delivery and is recognized as the responsibility of the entire healthcare team.
- Traditional healthcare curricula do not equip learners with knowledge or tools necessary to provide optimally safe care, to improve care quality, and do not address interprofessional aspects.³
- Only 25% of clerkship directors reported inclusion of patient safety curricula in training.³
- Interprofessional education (IPE) in patient safety is needed. We developed and implemented a voluntary interprofessional patient safety course for medicine, pharmacy, and nursing learners during critical care rotations.

Methods

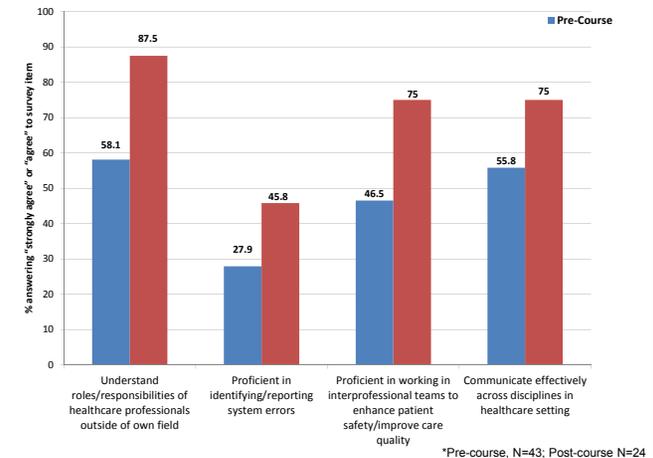
- **Medicine, pharmacy, and nursing faculty** developed an interprofessional course on patient safety for learners from all 3 disciplines.
- **Course objectives** were developed and mapped to core competencies in IPE and patient safety: values and ethics; roles and responsibilities; communication; teams and teamwork; interprofessional collaborative care; evidence-based medicine; systems-based practice; practice-based learning.
- Clinical faculty from all 3 disciplines were invited to facilitate sessions. **Each session had ≥1 faculty member from each discipline** present.
- **Participants:** 4th year medical students, Doctor of Pharmacy candidates, post-graduate pharmacy residents, Bachelors and Masters of Nursing students, and nurse practitioner students on critical care clinical rotations were invited to attend the voluntary course.
- **Course format:** 3 week cycles including **2 case-study** sessions and **1 root cause analysis** session. Course information, examples, and background reading and videos were available on a course website.
- **Case study sessions:** learners considered a patient they were involved in care of and **identified potential for harm** at start of session. Facilitators guided discussion of potential harms and **development of action plan for prevention**. Contributions and roles of each discipline for prevention was emphasized.
- **Mock RCA:** learners were led through the process a real RCA would use for a medication error scenario, including **completion of event and causal factors** diagram, **fishbone diagram of risks and contributing factors**, and recommendations for **risk reduction strategies and corrective actions**.
- **Surveys to assess Readiness for Interprofessional Learning as well as patient safety awareness** were completed at 1st session (pre-course) and 3rd session (post-course).⁴

Results

- **21 sessions** (**14 case-based** discussions; **7 mock RCA**)
- **43 of 63** invited students attended ≥1 session (11 [25.6%] medicine; 17 [39.5%] nursing; 15 [34.9%] pharmacy)
- **30 clinical faculty** facilitated sessions (7 medicine; 6 nursing; 17 pharmacy)
- **Nearly 100%** of students agreed or strongly agreed with survey questions regarding **benefits of shared learning**
- **75%** of respondents indicated they were **unsure of their own roles** in interprofessional education
- **35%** agreed or strongly agreed that they **have to acquire more knowledge and skill** than other types of professional students
- **~84%** agreed or strongly agreed that clinical problem solving is best learned with other students from their own professions.
- **100%** (24 of 24) students in post-course survey endorsed **wish for future opportunities for interprofessional education**.

Results, cont.

Pre- and Post-Course Responses* to Patient Safety and Quality Scale



Conclusions

- **Course challenges** include: **differing schedules** across 3 disciplines (differing semester start dates, rotation lengths, other educational requirements) and **time-intensive** for faculty.
- **Faculty** enjoyed course participation and believed **sessions were a necessary educational component**.
- **Student feedback** included suggestions for **learners from more disciplines** and inclusion of **participants beyond the ICU**.
- **Medical, nursing, and pharmacy learners** indicated **strong readiness** for interprofessional learning and **increased understanding of key patient safety** concepts from baseline.

References

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