

Can an Interprofessional Exercise Support Role Development and Quality of Care Delivery by Nurse Practitioner (NP) and Doctor of Pharmacy (PharmD) Students?

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Purpose

We evaluated a simulation-based workshop for NP and PharmD students designed to enhance assessment, prescribing, counseling and teamwork behaviors while caring for a pediatric client.

Background

- Pediatric prescribing is complex with a high risk of errors & adverse medication events.
- Safe medication management is a shared responsibility and demands effective communication and collaboration.
- Interprofessional (IP) education in effective communication and collaborative practice is essential during NP and PharmD training.
- Simulation-based and Standardized Patient (SP) exercises provide opportunities for skill development in communication and collaboration, while supporting low-risk practice in assessment and care planning.
- Practice opportunities in collaboration and communication can also positively shape attitudes about teamwork.

Methods

- Convenience sample of NP and PharmD students (N=175) recruited from current courses.
- Randomly assigned to teams of three, and presented with one of two pediatric case scenarios:
 - 21-year old female with pyelonephritis, drug allergy and potential drug-drug interaction, or
 - Six-month old male with seizures and non-adherence to the medication regimen, accompanied by his grandparent.
- Scenario included client interview, team planning, discussion and counseling/education.
- SPs provided feedback; students had group debrief.
- Students completed pre/post surveys coded for: teamwork, communication and role.
- Chi Square and ANOVA were used to analyze data.

Results

- 53 NP/122 PharmD students (164 completed pre/post surveys).
- 15/16 survey items showed significant change pre/post.
- Most students agreed that IP collaboration improves:
 - patient care and safety,
 - understanding of roles and relationships between professions,
 - clinical learning.

Reflection

Faculty debriefed following the session, agreed that the exercise was useful for ongoing IP education, and planned for subsequent sessions. This project was funded by a UCSF Library Instructional Training Grant, and residual monies are being applied to develop a similar exercise this academic year. A plan to develop reusable learning objects is also in place. The researchers thank the UCSF Kanbar Center for Simulation, Clinical Skills & Telemedicine Education, the UCSF Library Instructional Grants Program and Isabel Elaine Allen for data analysis.



Dissemination

This study supports development of IP exercises that underpin teamwork, communication and role development. Results are applicable to other IP learners and will be disseminated in professional literature and at professional conferences.

Selected Survey Items	N	Mean Δ pre/post (t-test)	SD	CI	Sig.
<i>Patient satisfaction is improved when patients are treated by a team of professionals from different disciplines</i>	164	0.09	0.412	[0.030, 0.150]	<i>p</i> = 0.005
<i>Health outcomes are improved when patients are treated by a team of professionals from different disciplines</i>	164	0.160	0.564	[0.070, 0.250]	<i>p</i> = 0.000
<i>Participating in educational experiences with another discipline of students enhances my future ability to work on an interdisciplinary team</i>	164	0.320	0.562	[0.230, 0.400]	<i>p</i> = 0.000
<i>There is always good communication in interprofessional groups</i>	164	0.850	1.226	[0.660, 1.040]	<i>p</i> = 0.000
<i>I prefer to work with team members who ask questions about information I provide</i>	164	0.290	0.709	[0.180, 0.400]	<i>p</i> = 0.000
<i>To be effective team members should understand the work of their fellow team members</i>	164	0.120	0.493	[0.290, 0.490]	<i>p</i> = 0.002
<i>I understand the roles of other professionals within the interdisciplinary team</i>	164	0.390	0.632	[0.290-0.490]	<i>p</i> = 0.000
<i>During their education advanced practice nursing students and pharmacy students should be involved in teamwork in order to understand their respective roles</i>	164	0.630	0.914	[0.490-0.780]	<i>p</i> = 0.000