

# Development of a Simulated Patient Safety Program to Increase



## Interprofessional Communication

Perrilynn A. Baldelli, MS, RN, ANP-C  
Kathleen Shurpin, PhD, ANP-C, PMHNP



### Background

- ◇ Ineffective healthcare teamwork skills and communication are associated with medical errors and poor outcomes.
- ◇ Increased emphasis on patient safety and Interprofessional (IP) team training.
- ◇ Simulation can be used as a training method to reduce errors and improve safety.

### Purpose

To explore the effectiveness of a simulated patient safety program to increase IP communication in health care professionals.

### Results

#### Demographics

Gender	Medical N=52 (57%)		Nursing N=40 (43%)		Total N = 92	
	Total	Percent	Total	Percent	Total	Percent
Female	26	50%	34	85%	60	65%
Male	26	50%	6	15%	32	35%
<b>Race</b>						
White	29	56%	23	57%	52	57%
Black	2	4%	3	7%	5	5%
Hispanic	1	2%	5	13%	6	7%
Asian	16	30%	5	13%	21	23%
Multiple/Other	4	8%	4	10%	8	8%
<b>Age</b>						
Mean	25.7		26.2		25.9	
<b>Prior Sim Experiences</b>						
Mean	8.0		2.8		5.7	

### Methods

**Design:** Quasi-experimental

**Sample:** Convenience

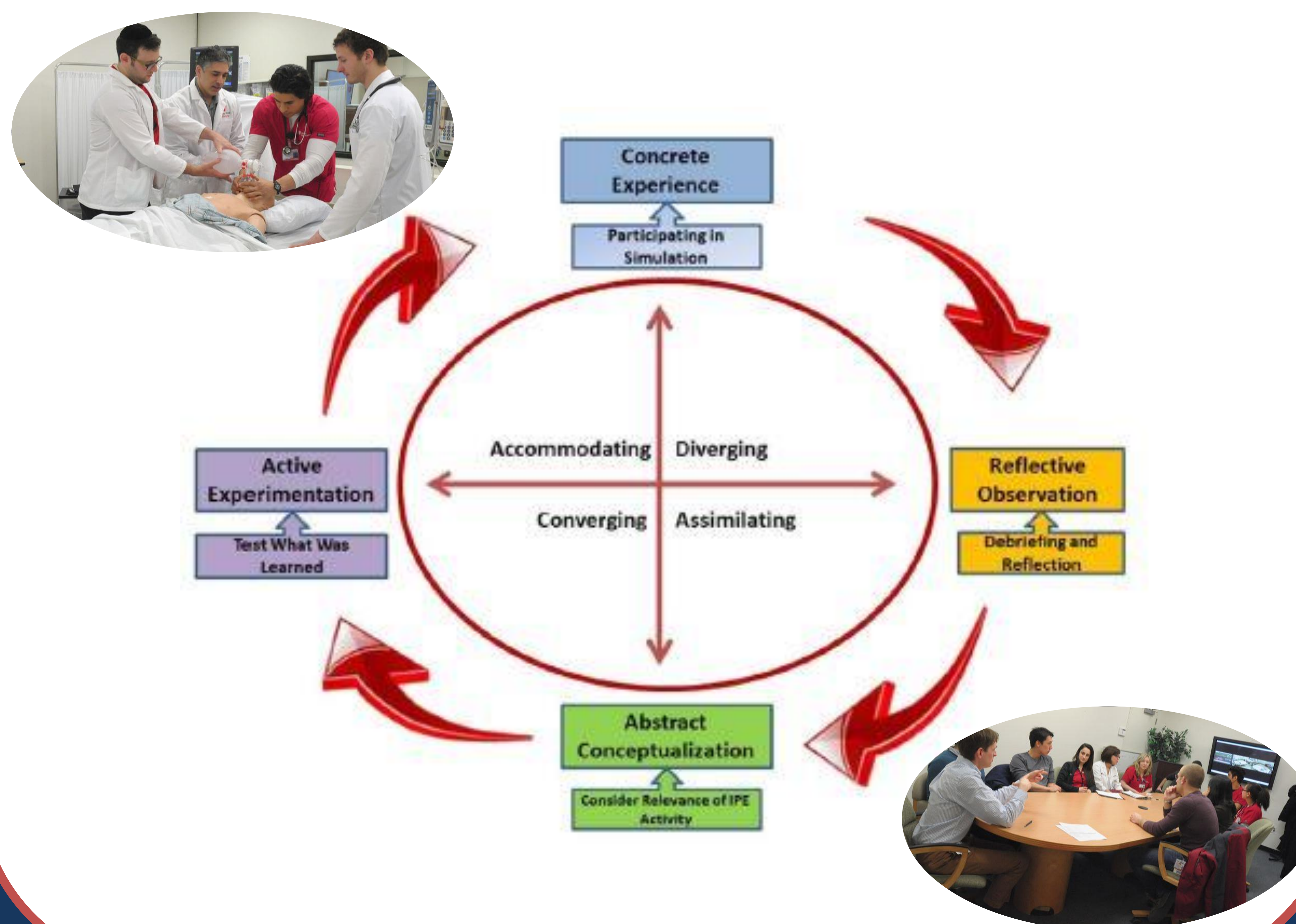
**Procedure:** 2.5 hour simulation session/3 simulations followed by debriefing. Data collected pre/post.

**Data Collection Tools:**

- TeamSTEPPS Teamwork Attitudes Questionnaire (TAQ)
- Attitudes, Motivation, Utility, and Self Efficacy (AMUSE)
- Patient Safety and Communication Knowledge Quiz
- Team Performance/
- Communication Checklist

**Data Analysis:** Paired T-Test for pre/post data. One-way ANOVA for observer ratings of team performance/communication.

### Kolb's Theory of Experiential Learning



### Conclusions and Implications

- ◇ Increases in attitudes regarding teamwork, knowledge of team process and communication skills were noted.
- ◇ Evidence supports the participants had increases in attitudes, motivation, and utility regarding IP simulation training
- ◇ Observer review of team performance revealed an increase in the mean team communication scores
- ◇ Implementation of a simulated patient safety program can improve IP communication in the simulated setting

#### Surveys

Instrument	Pre-Simulation Mean	Post-Simulation Mean	P value
<b>TeamSTEPPS Total Score</b>	123.1	127.1	.000
Team Structure	26.1	27.0	.002
Leadership	27.5	27.6	.770
Situation Monitoring	26.2	26.9	.005
Mutual Support	19.4	20.5	.003
Communication	23.8	25.0	.000
<b>AMUSE Total Score</b>	80.2	84.5	.000
Attitudes	17.6	18.3	.001
Motivation	22.7	24.7	.000
Utility	12.3	13.5	.000
Self-Efficacy	27.6	28.1	.154
<b>Knowledge Test Total Score***</b>	7.1	8.0	.000

\*\*\*Greatest increases in understanding TeamSTEPPS and communication tools including call outs, team event tools, and "CUS" (all at p<0.05)

#### Team Performance Review

- One way ANOVA
- Statistically significant difference between groups (F (2,18)= 4.299, p=.030)
- Team Communication Score was statistically significantly higher for Case 3 (11.6 ± 2.0, p=.031) compared to Case 1 score (9.0 ± 1.15).
- No statistical difference when compared to Case 2



We acknowledge the interprofessional group that supported and participated in this project including N. Goolsarran, M. Abate, R. Go, C. Hamo, S. Frawley and W. Lu. Special thanks to B. Mills for video review and the staff of the Clinical Simulation Center especially M. Boucher and D. Dugger.

