

# Utilizing IPE to enhance collaboration between nursing and speech-language pathology students in patients with tracheostomies

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## Introduction

The aim of this collaborative multi site research project was to determine the effects of teamwork and skill building between nursing and speech-language pathology students using an inter professional education (IPE) simulation on the quality of care in patients with a tracheostomy.



## Methods

After receiving IRB approval, a pretest posttest mixed method design was utilized to explore the relationship between IPE simulation and collaboration between two disciplines in a multisite study (NDMU and Loyola). Participants included 19 undergraduate nursing students, and 50 graduate speech-language pathology students from a neighboring university. A pilot IPE simulation following the ideas created by Potter and Allen (2013), following INACSL best standards, and guided by the National Interprofessional Competency Framework (CIHC), was completed April 2019. Interprofessional Collaborative Competencies Attainment Survey (ICCAS) was distributed and collected post IPE simulation. Participants also completed a self-reflection post IPE experience.

## Quantitative Results

Only surveys which were accurately completed for both pre and post assessments were used in the analysis, yielding a total of 65: 47 for SLP and 18 for Nursing. Descriptive statistics are depicted visually in Figure 1 for each of the six constructs of the ICCAS (i.e., communication, collaboration, roles & responsibilities, patient/family centered care, conflict management, team functioning), time (pre and post), according to group (SLP and Nursing).

Table 3. ICCAS Descriptive Statistics

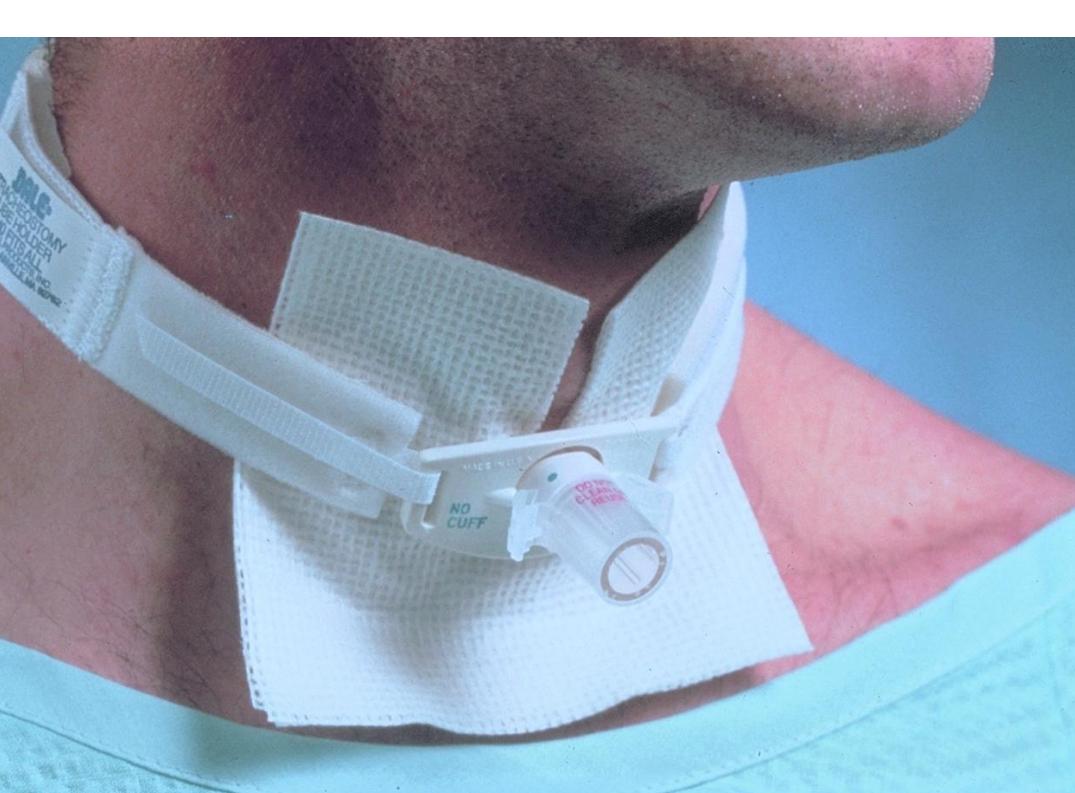
ICCAS Construct	Program (N)	Pre-test M (SD)	Post-Test M (SD)
Overall Results	SLP (47)	5.02 (0.91)	6.41 (0.54)
	NUR (18)	6.18 (0.80)	6.84 (0.25)[JP1]
Communication	SLP (47)	4.84 (1.01)	6.25 (0.69)
	NUR (18)	6.10 (.85)	6.93 (0.12)
Collaboration	SLP (47)	4.82 (1.14)	6.45 (0.61)
	NUR (18)	5.87 (1.21)	6.89 (0.28)
Roles & Responsibilities	SLP (47)	4.88 (1.10)	6.41 (0.62)
	NUR (18)	5.87 (1.21)	6.83 (0.35)
Pt/Family Centered	SLP (47)	5.19 (1.18)	6.41 (0.64)
	NUR (18)	6.18 (0.98)	6.78 (0.44)
Conflict Management	SLP (47)	5.55 (1.05)	6.59 (0.60)
	NUR (18)	6.54 (0.63)	6.92 (0.32)
Team Functioning	SLP (47)	4.86 (1.02)	6.33 (0.79)
	NUR (18)	6.47 (0.70)	6.75 (0.52)

Table 4. ICCAS Paired Samples t-Test.

ICCAS Construct	Program (N)	Mean Difference (SD)	Standard Error of Mean
Overall Results	SLP (47)		
	NUR (18)	[JP7] [JP8]	
Communication	SLP (47)	-1.41 (0.82)**	0.12
	NUR (18)	-0.83 (0.81)**	0.19
Collaboration	SLP (47)	-1.63 (0.98)**	0.14
	NUR (18)	-1.02 (1.21)*	0.28
Roles & Responsibilities	SLP (47)	-1.54 (0.94)**	0.14
	NUR (18)	-0.96 (1.12)*	0.26
Pt/Family Centered	SLP (47)	-1.22 (0.94)**	0.14
	NUR (18)	-0.59 (0.97)*	0.23
Conflict Management	SLP (47)	-1.04 (0.93)**	0.13
	NUR (18)	-0.37 (0.65)*	0.15
Team Functioning	SLP (47)	-1.47 (0.81)**	0.12
	NUR (18)	-0.28 (0.83)	0.19

Table 5. ICCAS ANCOVA.

ICCAS Construct	df	F	$\eta^2$ [JP11]	p
Overall Results	1	0.323		0.572
Communication	1	3.333		0.073
Collaboration	1	2.111		.151
Roles & Responsibilities	1	1.302		.258
Pt/Family Centered	1	.204		.653
Conflict Management	1	.222		.639
Team Functioning	1	1.793		.185



## Comparing the two groups

Although both groups showed statistically significant gains from pre to post test on the ICCAS, there was no significant difference between the two groups. That is, the Nursing students gained similarly to students in Speech-Language Pathology as demonstrated through an Analysis of Co-variance (ANCOVA) with the pre-test scores as the covariate.

## Literature cited

Refer to work cited sheet provided



## Acknowledgments

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## Further information

Working in a healthcare environment requires daily interaction with members from multiple disciplines collectively sharing information on a single patient. There is an opportunity to develop improved quality of patient care through IPE simulation. Ongoing research includes the introduction of psychology students, along side SLP and NUR, into an IPE that was piloted Fall 2019. Further development will be based on research findings,

## Qualitative Results

A content analysis was applied to interpret the meaning in verbal responses utilizing a quantitative approach in subjects who participated in an inter-professional education (IPE) experience. Subjects completed a written, anonymous, self-reflection post IPE. Both nursing and speech-language pathology students participated as subjects. Each subject answered two questions in a narrative response following a deductive qualitative approach.

