

Student Dentists' Attitudes Toward Collaborative Practice with NP Students

Presented by

Nancy Campbell-Heider, PhD, FNP-C, CARN-AP, FAANP, FIAAN

Associate Professor of Nursing & Chair, Family, Community &
Health System Sciences Department & Adjunct Associate
Professor of Dental Medicine, University at Buffalo



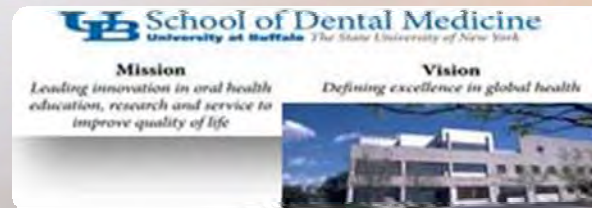
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Contributing Authors

- Patrick Anders, DDS, MPH
- Yvonne Scherer, Ed.D, CNS
- Donald Antonson, DDS. M.Ed.
- Tammy Austin-Ketch, PhD, FNP-BC, FAANP
- Patricia Nisbet, DNP, PMHNP-BC
- Pamela Paplham, DNP, FNP-BC, AOCNP, FAANP
- Susan Nierenberg, DNP, FNP-BC
- Linda Paine Hughes, DNP, FNP-BC, PMHNP-BC, ANP

Purpose of the Presentation

The purpose of this presentation is to report on a quasi-experimental study to measure the impact of innovative interprofessional collaborative practice (IPCP) learning experiences for NP and dental students on attitudes about interprofessional practice.



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Background

- Partnership between the school of Nursing and Dental Medicine funded by HRSA
- BS to DNP FNP and Adult-Gerontology (AGNP) students worked in Urgent Care and Screening Clinics to enhance their knowledge and skills in oral health
- PMHNP students worked in the Oro-Facial Pain Clinic to enhance behavioral health interventions, assessments, and mental health wellness in chronic pain patients
- Student dentists consulted with the NPs to increase their knowledge of patients' systemic health conditions, medications, and other lifestyle and behavioral risk factors that impact oral health

IPCP Intervention Activities

- Students supervised by an IPCP faculty team
- Dental faculty provided extensive orientation to the NPs
- NP faculty provided lectures & discussion about NP role, preparation, licensure ...and IPEC competencies
- Post clinical seminars for NPs
- Case conferences for Dental residents & PMHNP student/faculty teams
- IPCP team standardized patient evaluations each semester



Methods



Participants

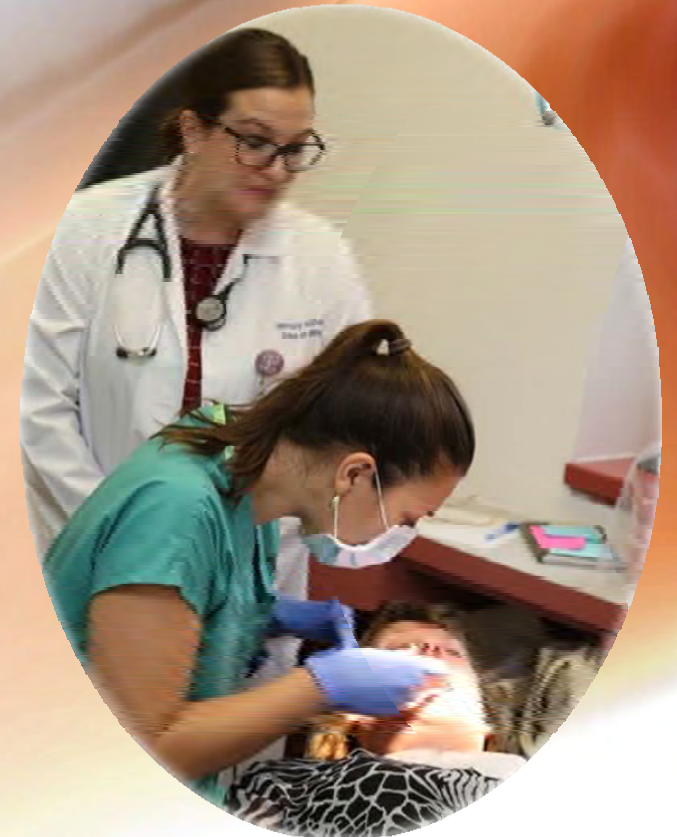
- Large dental class cohorts and small number of NP students provided a natural laboratory for comparison
 - 56.8% dental students worked with the IPCP teams
 - 43.2% did not participate and served as the control group
- IRB approval obtained for all aspects of the program evaluation
 - NP students required to participate as part of their program with informed consent for use of evaluation data in the studies
 - Dental students required to work with the IPCP as part of their program with informed consent for use of evaluation data in the studies

Design

- Quasi-experimental, longitudinal design with repeated cohorts of students
- NP and Dental Cohorts assessed pre and post IPCP experiences
 - Readiness for Interprofessional Learning scale (Parsell & Bligh, 1999)
- Both groups assessed post intervention
 - IPCP evaluation survey developed by the grant team
- Data from year 2
 - 4th year students

Readiness for Interprofessional Learning Scale

- Developed by medical educators but tested on interprofessional students
 - Alpha coefficient 0.90 for internal consistency
- Three factors identified in pilot testing (19 questions)
 - Team-work and collaboration
 - Sense of Professional identity
 - Roles & responsibilities
- Multiple researchers have modified this tool
 - Scoring
 - Alteration of some questions



IPCP Evaluation Survey

- Approximately how many IPCP encounters did you experience during the past semester?
- 1-2 things that you have learned about IPCP during the course.
- 1-2 questions about the value of IPCP in your specialty.
- 1-2 things that could improve the IPCP experience.

How much will what you learned about IPCP this past semester influence your future clinical practice?
Mark the box that best describes your rating.

Not at all		Somewhat				A great deal
0	1	2	3	4	5	6

How would you rate the IPCP experiences in this course overall? Mark the box that best describes your rating.

Poor			Average			Exceptional
0	1	2	3	4	5	6

Results: Descriptive Analysis

- No differences between pre and post test scores for 4th year dental students on RIPLS over two semester time frame
- NP students numbers too small to compare RIPLS scores by learner groups
- Data from the IPCP Survey (N=88 respondents)
 - 67.8 (77%) respondents had 0, 1 or 2 experiences with NPs (range was 0 to 30)
 - Data converted to two groups
 - 0=no experience n=38 (43.2%) 1=one or more experiences n=50 (56.8%)

Results: Principle Analysis

- Comparison of 4th year student dentists with and without IPCP experience with NPs and RIPLS subscales
- Only scales for Teamwork & Collaboration and Sense of Professional Identify were used in the analysis
- Controlling for experience with NP, Dental students with experience scored higher on Teamwork & Collaboration and Sense of Professional identity than those without experience

Table 1. Mean Scores on Post-test Subscale Scores by IPCP Experience Groups

Number of IPCP, yes/no		Teamwork & Collaboration Rating 1-5	Professional Identity Rating 1-5
.00	Mean	4.2088	2.8743
	N	35	35
	Std. Deviation	.53638	.92557
1.00	Mean	4.4537	2.4792
	N	49	48
	Std. Deviation	.48352	.91767
Total	Mean	4.3516	2.6458
	N	84	83
	Std. Deviation	.51750	.93617

Table 2. ANOVA Comparisons of Subscale Scores by IPCP Experience

Variables		Sum of Squares	df	Mean Square	F	Sig.
Teamwork & Collaboration Number of IPCP, yes/no	Between Groups	1.224	1	1.224	4.780	.032
	Within Groups	21.004	82	.256		
	Total	22.228	83			
Professional Identity Number of IPCP, yes/no	Between Groups	3.160	1	3.160	3.725	.057
	Within Groups	68.706	81	.848		
	Total	71.866	82			

IPCP Survey

Overall rating of the IPCP experiences?

# EXP	N	Mean 1-6	STD. DEV.
0	15	2.0	2.0
1 or more	56	3.9	1.4
Total	76	3.0	1.7

How much will the IPCP experience influence your future practice?

# EXP	N	Mean 1-6	STD DEV.
0	20	1.3	1.7
1 or more	56	3.6	1.3
Total	76	3.0	1.7

Table 3. Correlation between Number of IPCP Experiences & Questions

Variables				
Number of IPCP experiences	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	57		
How much will the IPCP experience influence your future clinical practice?	Pearson Correlation	.292*	1	
	Sig. (2-tailed)	.029		
	N	56	56	
How would you rate the IPCP experiences overall?	Pearson Correlation	.303*	.716**	1
	Sig. (2-tailed)	.023	.000	
	N	56	56	56

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Things Learned about IPCP

- “The cross over between fields...”
- “The importance of collaboration”
- “I learned that working together with other healthcare professionals can create a more thorough exam”
- “Patients presenting with dental problems often had serious psychiatric difficulties. These issues would not have been addressed without the NPs”
- “Collaboration between health care providers can expedite the treatment process”

Questions about the Value of IPCP in your Practice?

- “How can we create more opportunity for interprofessional collaboration?”
- “How will I afford a nurse in my office?”
- “Why isn’t there more of this at school?”
- “How often will we be practicing IPCP in real life?”
- “I can see how this would be helpful but how does this happen in private practice?”
- “How cost effective is this?”
- “How would this benefit an orthodontist?”

Suggestions to Improve the IPCP Experience

- “Have us meet with the NPs for the experience to improve the relationship...before our first encounter with a patient”
- “Have more clarity in how we should interact..often felt awkward because I wasn't sure how much to tell them ...”
- “More interactions” - “More encounters”
- “A course on IPCP”
- “We never really had much preparation for this, like a lecture explaining how to use IPCP”
- “Maybe have them come more often so we can get the experience of teamwork”

Research Implications

- IPCP experience is significantly associated with positive attitudes toward teamwork, collaboration, and a sense of professional identity.
- Finding is consistent with the Institute of Medicine's call for measuring the impact of IPE on collaborative practice (IOM, Report Brief, April 2015)
- Experience with other professionals matters!

Program Evaluation

- Number of experiences with IPCP were positively correlated with program ratings.
- Frequent suggestions for more interactions with NPs and other healthcare professionals.
- Need for more orientation of the dental students to the NP role and their knowledge and skill set.
- NP-dental collaborative practice is a new paradigm for both groups, however most rated the experience positively.
- Faculty need to demonstrate *how* to collaborate



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