

# Effects of Participation in an Interprofessional Student-Run Free Clinic on Achievement of Core Curricular Competencies

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## Background

The Case Western Reserve University (CWRU) Student-Run Free Clinic (SRFC) is collaborative practice between the CWRU School of Medicine, the CWRU School of Nursing, and the Free Clinic of Greater Cleveland. The goals of the SRFC are three-fold:

1. Provision of health care to medically underserved populations within the Cleveland community.
2. Enablement of unique clinical experiences and mentorship opportunities for health-professions students.
3. Creation of a unique environment for interprofessional cooperation between future healthcare professionals.

The goal of this study is to assess the extent to which student participation in a SRFC supports the accomplishment of competencies defined by medical and nursing school program curricula, and to examine the perceived educational value of students' interprofessional collaboration in the SRFC setting.

## Statement of Problem

This exploratory study is designed to evaluate student perceptions' of the educational value of participation in a SRFC. Specifically:

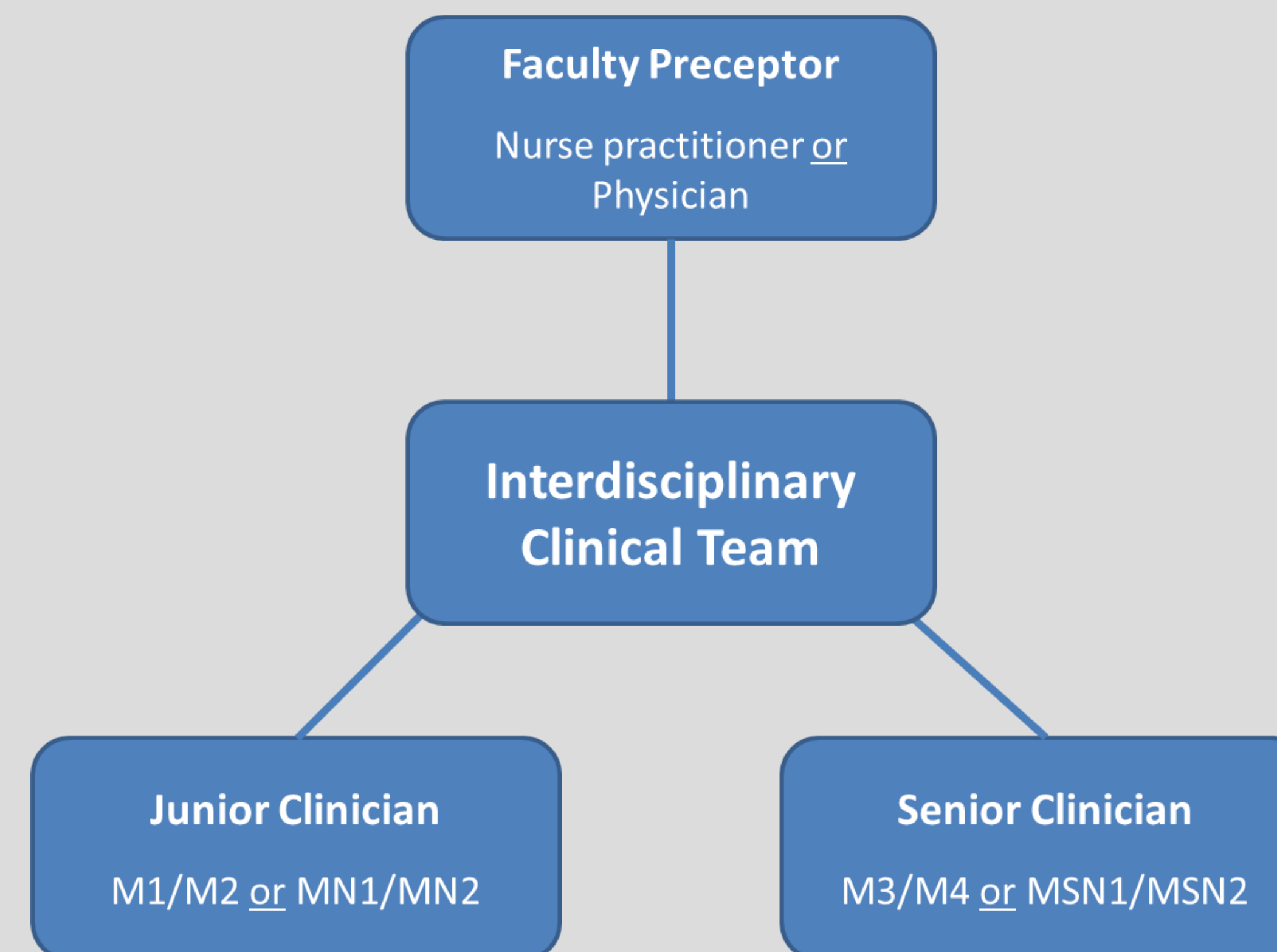
1. The extent to which nursing and medical students view participation in SRFC as helpful in developing the educational competencies targeted by their respective schools.
2. The degree to which medical and nursing student are ready to learn in an interprofessional setting and view the opportunity to work together within the SRFC as helpful for their professional development.

## Interdisciplinary Collaboration

While many medical schools have SRFCs, the CWRU SRFC is the first to be established as an interprofessional collaboration between medical and nursing students. Throughout the planning and execution of the clinic's pilot sessions, and throughout our current daily operations, students from the MN, MSN and MD programs have had various opportunities to collaborate:

1. Students worked together in planning committees to outline the SRFC's future clinical care model, financing and development goals, outreach initiatives, and quality control assessment.
2. The SRFC is run entirely by an interprofessional student board, with leadership positions distributed between nursing and medical students.
3. Volunteers at the SRFC are recruited from both the school of nursing and the school of medicine, and clinical teams are composed of members from each program.

## Interprofessional Clinical Model



Our clinical model further promotes interprofessional interaction in a unique setting. Each patient is seen by an interprofessional team that consists of both a junior and senior clinician. The junior clinician is either a 1<sup>st</sup>/2<sup>nd</sup> year medical student (M1/M2) or a 1<sup>st</sup>/2<sup>nd</sup> year masters of nursing student (MN1/MN2), while the senior clinician is either a 3<sup>rd</sup>/4<sup>th</sup> year medical student (M3/M4) or a 1<sup>st</sup>/2<sup>nd</sup> year masters of science in nursing student (MSN1/MSN2) of the opposite program.

## Methods

**Survey:** A two-part online survey was administered:

**Part 1.** A Likert scale measuring students' perceptions of the extent to which participation in the planning and/or execution of the SRFC pilot was supportive of the development of a list of curricular competencies defined by the student's respective program.

**Part 2.** A questionnaire assessing the readiness of health care students for interprofessional learning (RIPLS), measured on three subscales: team work and collaboration, professional identity, and roles and responsibilities (1).

**Subjects:** The survey was administered at the end of the 2010-2011 academic year to 35 medical students and 15 nursing students who participated in the planning and/or execution of the student-run free medical clinic over the course of the year. Ten medical students and ten nursing students completed the questionnaire, indicating a 29% response rate and 60% response rate for medical and nursing students, respectively.

**Data analysis:** The small sample size and difference in response rate across the two groups suggested that a t-test of unequal variance was appropriate for the comparison of the means of medical and nursing students' responses to the three subscales of the RIPLS questionnaire (2).

### References:

1. Parsell, G, Bligh J. (1999). The development of a questionnaire to assess the readiness of health care students for interprofessional learning (RIPLS). *Med. Educ.*, 33, 095-100.
2. Welch, B. L. (1947). The generalization of "Student's" problem when several different population variances are involved. *Biometrika*, 34, 28-35.

## Results

**Likert scale survey:** Overall, results from this survey suggest that **nursing students viewed participation in the SRFC to be more supportive of the development of core curricular competencies than did medical students** (overall mean of 4.56 vs 3.79). Mean values reflecting the extent to which medical and nursing students believed their experiences with the SRFC to contribute towards particular core curricular competencies are presented below:

### Nursing and medical students' perceptions of the extent to which SRFC participation helps develop curricular competencies

Medical Curricular Competencies	Mean*	Nursing Curricular Competencies	Mean*
Medical Knowledge	3.7	Patient and community education	4.8
Patient Care	3.8	Continued learning and scholarship	4.3
Interpersonal and Communication Skills	3.7	Patient-centered care	4.7
Professionalism	3.7	Evidence-based care	4.7
Life-Long Learning and Personal Development	3.66	Ethnicity-centered care	4.3
Research and Scholarship	3.15	Overall competency fulfillment mean	4.56
Civic Professionalism	4.5		
Health Advocacy and Leadership	4.5		
Practice-Based Learning and Treatment	3.0		
System Based Practice	4.2		
Overall competency fulfillment mean	3.79		

\*Scale: 5 = To a great extent, 4 = Somewhat, 3 = Not sure, 2 = Very little, 1 = Not at all

**RIPLS:** Statistical comparison of medical and nursing student's survey responses showed that **nursing students attributed a statistically greater educational value to interprofessional experiences, as well as a greater willingness to learn in an interprofessional setting.** Comparison of the two groups on individual questionnaire items indicated that **nursing students viewed the experience as likely to help them become a more effective member of a health care team, communicate better with patients and other professionals, and think positively about other professionals, to a significantly greater extent than did medical students.**

### Nursing and medical students' readiness for interprofessional learning

Subclass	Medical Students Sub-Class Mean*	Nursing Students Sub-Class Mean*	P Value (<0.05)
Team-Work and Collaboration	4.4	4.8	0.004
Professional Identity	3.2	3.3	0.939
Roles and Responsibilities	2.4	1.6	0.183

\*Scale: 5 = Strongly agree, 4 = Agree, 3 = Neither agree nor disagree, 2= Disagree, 1 = Strongly disagree

## Conclusions

The results of this exploratory study suggest that:

1. Medical students viewed their participation in the interprofessional SRFC experience to be less beneficial for the development of educational competencies identified by their program than did nursing students.
2. Medical students also report lower readiness for and interest in interprofessional learning experiences as an opportunity to develop their professional knowledge and skills than nursing students.

Additional research is needed, utilizing larger sample sizes, to further explore the impact of these learning experiences within the SRFC and to examine potential reasons for differences in the value attributed to the experience by medical and nursing students.

## Acknowledgements

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