Is Prior Interprofessional Experience Associated with Attitudes of Graduate Healthcare Students Toward Interprofessional Education?

Preeti D. Oza, PT, PhD, *University of the Pacific*
Kathryn C. Nesbit, PT, DPT, DSc, *University of California San Francisco & San Francisco State University*

Abstract

Background: Educational background and students' preparedness influence interprofessional education (IPE). We studied if healthcare students' prior exposure to interprofessional collaborations and education influenced their attitudes and readiness for IPE.

Methods: Graduate students were surveyed in this cross-sectional study using the Readiness for Interprofessional Learning Survey (RIPLS). Independent variables included age, gender, type of healthcare program, diversity of clinical observation settings, and previous IPE coursework.

Findings: Sixty-eight completed surveys included 60 percent in the 20 to 25-year-old group and 78 percent females. Controlling for age and gender, MANCOVA showed no group mean differences in the RIPLS.

Conclusions: Students' attitudes toward IPE are not associated with their professional program, previous IPE coursework, or exposure to interprofessional interactions in diverse clinical observations.

Keywords: Interprofessional; Education; Readiness for interprofessional learning survey; Attitudes

Introduction

Today's changing healthcare delivery system involves collaborative teamwork requiring interprofessional interactions [1]. Interprofessional collaborative practice is "when multiple health workers from different professional backgrounds work together with patients, families, caregivers, and communities to deliver the highest quality of care" [2, p. 7]. One of the ways to develop effective collaborative practice is to include interprofessional education (IPE) in healthcare educational programs [3,4].

Curriculum planning in healthcare programs to promote interprofessional competencies is receiving considerable attention. Interprofessional education is a curricular goal in 78 percent of institutions surveyed by Gough et al. [5]. Best practices for IPE that lead to effective collaborative practice still need to be established [6]. This is particularly important as new requirements for IPE in program curricula emerge amid the backdrop of budget cuts and decreasing resources for both graduate and undergraduate programs.

As models for curricular design are evolving, it has been noted that the development process is iterative, including establishing a mission, finding a common philosophy, building a framework, and using an assessment plan to measure outcomes [7-9]. The process of curricular planning includes the need to identify factors that influence the success of IPE programs. Student support has been identified as being important to the success of IPE programs [10]. Studies examining students' attitudes about IPE before and after participating in courses attended by students from different disciplines have shown that attitudes change after attending IPE courses [11-14]. However, effective interprofessional collaboration does not spontaneously emerge when students from different disciplines are merely grouped together.

It is also important to establish the readiness of students for IPE prior to immersing them in IPE education [15,16]. The identification of factors that influence readiness for IPE can inform the development of learning strategies aimed at improving teamwork and patient-care outcomes. Judge et al. [17] found that the professional field influenced readiness for interdisciplinary learning. Prior exposure to interprofessional interactions either via undergraduate coursework or required clinical observations prior to admission into graduate professional education may influence a students' engagement in IPE. In the current literature, there is a lack of studies that examine how graduate students' prior experience in interprofessional collaborations relates to their readiness for IPE.

The purpose of this study was to examine whether or not prior exposure to interprofessional collaboration influenced healthcare students' attitudes about and readiness for IPE. Prior exposure to interprofessional collaborations is defined as any experience with IPE in the undergraduate curriculum or through a diversity of clinical observations prior to the start of the graduate program. "Diversity of clinical observations" is defined as having two or more different settings (e.g., acute rehabilitation, inpatient, outpatient) during clinical observations prior to the start of the graduate program. The diversity of clinical observation settings would provide the student with exposure to multidisciplinary teams and interprofessional collaboration—especially in the acute rehabilitation and inpatient settings. The hypothesis was that students with prior exposure to interprofessional collaboration would demonstrate higher survey scores indicating positive attitudes toward and perceptions of graduate interprofessional education on Readiness for Interprofessional Learning Survey (RIPLS) items, as compared to those without prior exposure to interprofessional interactions. The specific objectives of the study were to determine if the following factors influenced the students' readiness for interprofessional learning: 1) the type of program, 2) prior coursework in IPE, and 3) the diversity of clinical observation hours completed prior to admission, controlling for age and gender.

Methods

This cross-sectional study was based on the valid RIPLS questionnaire to assess the attitudes and perceptions of the students. Demographic information was collected about participants' age group, gender, and field of healthcare, as well as previous exposure to interprofessionalism via undergraduate coursework and/or clinical

observation hours. The number of different clinical settings where the observation hours were completed was used to determine if the student had exposure to a diversity of clinical settings (two or more different settings).

Participants

Following Institutional Review Board (IRB) approval, first-year students registered in graduate programs of physical therapy, pharmacy, and speech-language pathology were invited to complete the survey via email. Completion of the survey was considered as consent to participate in the study. In total, 200 students from pharmacy, 37 from physical therapy, and 38 from speech therapy ($n = 275$) were recruited (see Figure 1).
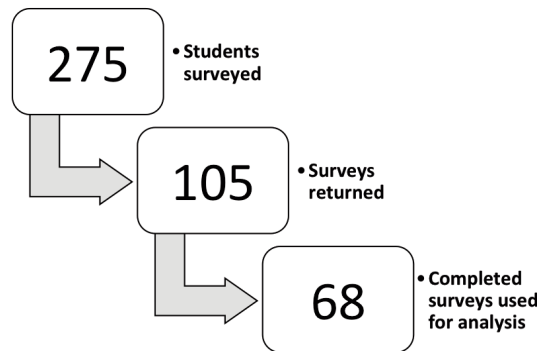

Figure 1. Acquisition of data: Survey response

Outcomes

The RIPLS questionnaire, a 19-item tool with a 5-point scale and good reliability, was used [18,19]. The 5-point Likert response scale was based on agreement (1 = strongly disagree to 5 = strongly agree). Then, RIPLS subscale scores were computed across four different constructs: 1) Subscale 1 (SS1) reflecting teamwork and collaboration (items 1–9), 2) Subscale 2 (SS2) reflecting negative professional identity (items 10–12), 3) Subscale 3 (SS3) reflecting positive professional identity (items 13-16), and 4) Subscale 4 (SS4) reflecting roles and responsibility (items 17–19) [18-20].

Data analysis

Data was analyzed using SPSS (IBM SPSS Statistics for Windows, Version 22.0. IBM Corp., Armonk, NY), and items 10–12 and 18 on the RIPLS were reverse coded [21]. Demographic information was analyzed for descriptive frequencies. The dependent variables were the 19 items on the RIPLS. Independent variables included age group, gender, type of graduate program, students' previous coursework related to IPE, and the diversity of clinical settings where observations hours were completed.

Chi-square tests were done to determine the relationship between the program and previous IPE coursework and the program and the diversity of clinical observation hours. Kendall's coefficient of concordance was done to assess the distribution of previous courses and the diversity of clinical observation settings across the programs. A Multivariate Analysis of Covariance (MANCOVA) was conducted to

Journal of Research in
**Interprofessional
Practice and
Education**

Vol. 8.1
2018

www.jripe.org

examine whether or not there are differences in groups defined by the type of graduate program, students' prior IPE coursework, and the diversity of prior clinical observation settings, adjusting for age and gender, on the RIPLS (subscales and total). The MANCOVA was chosen rather than multiple analyses of variance (ANOVAs) to avoid conducting analysis on the same data and inflating the experiment-wise error rate. Levene's test was performed to establish the assumption of homogeneity of variance for all of the dependent variables. Post hoc tests were also done, but they were not meaningful because of the lack of significant findings (see the Results section).

Results

Survey return rate

Of the 275 students surveyed, 105 students returned the surveys (38%). Pharmacy students had a higher survey return rate (32.5%; 65 out of 200) than physical therapy (29.7%; 11 out of 37) and speech-language pathology students (31.6%; 12 out of 38) for completed surveys. Seventeen surveys could not be used in the analysis because the program was not indicated. Additionally, 20 surveys could not be included in the analysis because they were incomplete. An overall response rate of 24.7 percent was achieved, yielding a sample of 68 surveys containing complete data (see Figure 1).

Demographic information

The majority of respondents (60%) were in the age group of 20–25 years, and the majority of respondents (78%) were female (see Table 1).

Difference in exposure to interprofessional education through prior coursework across the programs

The majority of the respondents (n = 46; 67.64%) did not have previous coursework in IPE. Kendall's concordance coefficient showed that previous coursework was not uniformly distributed across the graduate programs (w = 0.001). Among the different graduate programs, 80 percent of total physical therapy students (n = 8) did not have IPE in previous undergraduate programs, compared to 67.4 percent of pharmacy students (n = 31) and 58.3 percent of speech-language pathology students (n = 7). However, the chi-square test

Table 1. Demographic information of participants who completed surveys

Program	Number	Percent
Pharmacy	46	67.6
Physical therapy	10	14.7
Speech-Language Pathology	12	17.6
Age		
20–25	57	59.4
26–30	6	6.3
31–35	2	2.1
>35	3	3.1
Gender		
Male	15	22
Female	53	77.9

Journal of Research in
**Interprofessional
Practice and
Education**

Vol. 8.1
2018

www.jripe.org

performed to examine the relation between the program and previous IPE coursework was not significant, (χ^2 (4, $N = 68$) = 5.287, $p = 0.259$).

Difference in exposure to interprofessional interactions through diverse clinical observation settings across programs

Kendall's concordance coefficient showed that a diversity of clinical observation settings was not uniformly distributed across the graduate programs ($w = 0.001$). Compared to pharmacy ($n = 15$; 32.6%) and speech-language pathology ($n = 8$; 66.6%) graduate students, all physical therapy students had completed observations hours in diverse clinical settings (i.e., more than one type of clinical setting) (see Table 2). The chi-square test performed to examine the relation between the program and the diversity of clinical observation settings was significant: (X_2 (2, $N = 68$) =16.854, $P < 0.001$). Physical therapy students were the most likely to have completed clinical observation hours in diverse clinical settings prior to the start of their graduate program.

Table 2. Prior IPE coursework and the diversity of clinical settings for observation hours across programs ($n = 68$)

| Previous IPE coursework			
Program	**Yes** *N* **(%)**	**No** *N* **(%)**	**Do not know** *N* **(%)**
Pharmacy ($n = 46$)	9 (19.5)	31 (67.4)	6 (13)
Physical Therapy ($n = 10$)	2 (20)	8 (80)	0 (0)
Speech-Language Pathology ($n = 12$)	5 (41.6)	7 (58.3)	0 (0)
Total ($n = 68$)	**16 (23.5)**	**46 (67.6)**	**6 (0.1)**
≥ 2 clinical settings for observations			
Program	**Yes** *N* **(%)**	**No** *N* **(%)**	**Do not know** *N* **(%)**
Pharmacy ($n = 46$)	15 (32.6)	31(67.4)	0 (0)
Physical Therapy ($n = 10$)	10 (100)	0 (0)	0 (0)
Speech-Language Pathology ($n = 12$)	8 (66.7)	4 (33.3)	0 (0)
Total ($n = 68$)	**33 (48.5)**	**35 (66.1)**	**0 (0)**

Differences in RIPLS scores related to program, age, gender, prior IPE coursework, and diversity of clinical experience

Table 3 shows the differences in scores on RIPLS questions for students from the different graduate programs. The scores for SS1 varied from 30–45 ($M = 39.9$, $SD = 4.4$), SS2 scores varied from 6–15 ($M = 11.5$, $SD = 2.2$), SS3 scores varied from 11–20 ($M = 16.4$, $SD = 2.5$), and SS4 scores varied from 7–15 ($M = 11.1$, $SD = 1.5$). The most symmetrical distribution of scores was SS4, which showed a bell-shaped distribution. The other subscales had asymmetrical distributions, and were skewed toward the left (i.e., toward the higher values on the subscales) (Figure 2). A higher score indicates more positive attitudes toward IPE.

Journal of Research in
**Interprofessional
Practice and
Education**

Vol. 8.1
2018

www.jripe.org

Table 3. Average (Standard Deviation) subscale scores in Readiness for Interprofessional Learning Survey (RIPLS) across programs

Subscale (SS)	Pharmacy	Physical Therapy	Speech-Language Pathology	All Students
SS1: Teamwork and collaboration (items 1-9)	40 (4.38)	41.5 (4.48)	38.6 (4.60)	39.9 (4.4)
SS2: Negative professional identity (items 10-12)	11.6 (2.26)	11.7 (2.95)	11.2 (1.64)	11.5 (2.2)
SS3: Positive professional identity (items 13-16)	16.6 (2.41)	17 (2.0)	15 (2.99)	16.4 (2.5)
SS4: Roles and responsibilities (items 17-19)	11.3 (1.48)	10.4 (1.78)	11 (1.28)	11.1 (1.5)
Total RIPLS score	**79.4 (8.29)**	**80.6 (9.48)**	**75.8 (8.9)**	**78.9 (8.6)**

Note: A higher score indicates more positive attitudes toward IPE. Scores for each item ranged from 1-5.
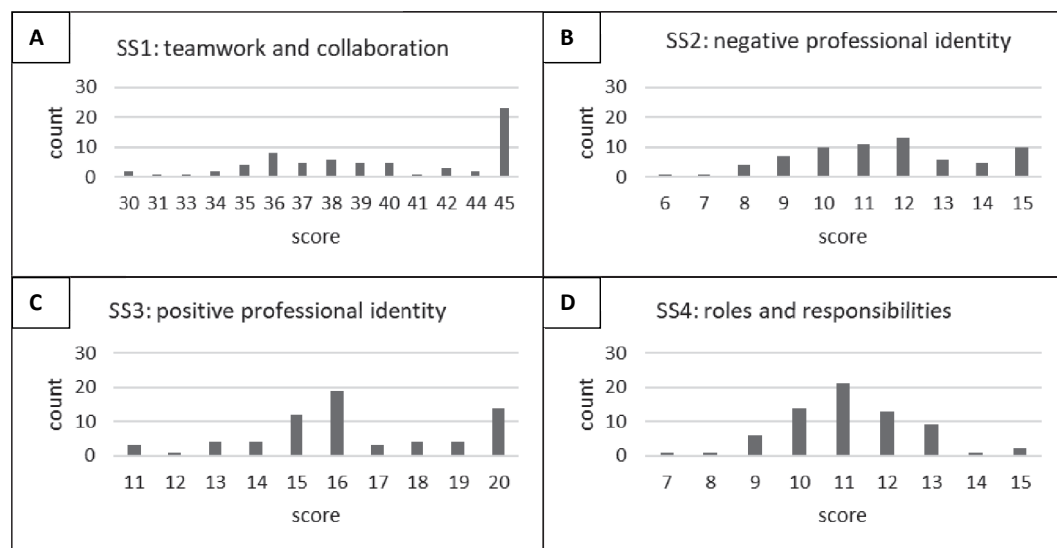
Note: Subscale 1 (SS1) reflecting teamwork and collaboration (items 1-9); B) Subscale 2 (SS2) reflecting negative professional identity (items 10-12); C) Subscale 3 (SS3) reflecting positive professional identity (item 13-16); and D) Subscale 4 (SS4) reflecting roles and responsibility (items 17-19)

Figure 2. Frequency of subscale (SS) scores (*n* = 68)

Table 4 shows the results of the influences of the independent variables on the total and subscale RIPLS scores. The MANCOVA showed no significant differences for the type of graduate program, students' prior IPE coursework, or the diversity of prior clinical observation hours, while adjusting for age and gender, based on the Pillai's Trace, Wilk's lambda, Hotelling's Trace, and Roy's Largest Root test statistics. Taken together, these results suggest that the graduate program in which the student was enrolled, the students' prior IPE coursework, and the diversity of clinical observation settings, controlling for age and gender, did not influence the total RIPLS score or all subscale scores.

Journal of Research in
**Interprofessional
Practice and
Education**

Vol. 8.1
2018

www.jripe.org

Table 4. Influence of age, gender, program type, prior IPE coursework, and the diversity of prior clinical observation settings on RIPLS[a] Subscale and Total scores

Independent Variable	Pillai's Trace			Wilks' Lambda			Hotelling's Trace			Roy's Largest Root		
	Value	F (df, error df)	p	Value	F (df, error df)	p	Value	F (df, error df)	p	Value	F (df, error df)	p
Program	0.184	$F_{10,114}$ = 1.155	0.329	0.823	$F_{10,112}$ = 1.148	0.334	0.207	$F_{10,110}$ = 1.140	0.339	0.155	$F_{5,57}$ = 1.765	0.135
Coursework	0.130	$F_{10,114}$ = 0.794	0.635	0.873	$F_{10,112}$ = 0.784	0.644	0.141	$F_{10,110}$ = 0.774	0.654	0.98	$F_{5,57}$ = 1.112	0.364
Diversity	0.054	$F_{5,56}$ = 0.634	0.674	0.946	$F_{5,56}$ = 0.634	0.674	0.057	$F_{5,56}$ = 0.634	0.674	0.057	$F_{5,56}$ = 0.634	0.674

Note: [a] RIPLS: Readiness for Interprofessional Learning Survey

Discussion

Studies have shown that exposure to IPE during graduate training is an effective method to reinforce interprofessional collaboration in healthcare [12,22]. Prior to developing IPE courses at our university, we sought to understand if attitudes about and readiness for IPE were influenced by previous exposure to interprofessional interactions in a clinical setting and previous IPE coursework. We looked at differences in RIPLS scores among pharmacy, physical therapy, and speech-language pathology students in their first semester. We considered whether or not previous exposure to IPE and observation hours completed in diverse clinical settings prior to admissions influenced the RIPLS scores.

The number of returned surveys (return rate = 24.7%) was in the typically accepted range of the internal survey response rate of 20 to 40 percent [23]. The age range of most of the applicants (20–30 years) was reflective of the average age of healthcare graduate students today.

The total mean RIPLS scores were similar to those found in other studies [16]. Students in all three programs displayed similar attitudes toward and readiness for graduate interprofessional education. All students, irrespective of the field of study, supported interprofessional education and did not differ in subscale scores on the RIPLS. These findings are similar to some studies [6], yet differ from others [15,16,21]. Results of cohort studies comparing medical, physical therapy, occupational therapy, and nursing students found that the medical students had the lowest scores [15,16]. Results of a study done by Hertweck et al. [21] found that physician's assistant students had significantly lower scores. This study, however, did not include students from medical and physician assistants' programs. The study results are similar to studies with professional healthcare groups such as physical therapy, occupational therapy, counselling psychology, and nursing [6].

Similar to a study by Hood et al. [24], less than 50 percent of this study's respondents had exposure to IPE in previous coursework. But, unlike their results [24], previous IPE coursework was not related to higher SS1 (teamwork and collaboration) and SS3 (positive professional identity) scores in this study. Students with prior coursework in IPE had similar positive attitudes about IPE as the students who were not exposed to IPE in undergraduate coursework, on all subscale scores in this study. Thus, there is differing evidence about the association between interprofessional learning in undergraduate courses and more positive attitudes toward collaboration, teamwork, and professional identity.

The results of this study also differed from those of Hertweck et al. [21], which showed that students with prior exposure to a healthcare environment had a more positive view regarding interprofessional collaboration, as indicated by their SS2 (negative professional identity) scores. In this current study, all students irrespective of prior exposure to healthcare had a positive view regarding IPE. This could be explained by the differences in the definition of prior exposure to healthcare. Hertweck et al. [21] considered the hospitalization of the student or an immediate family member as prior exposure to healthcare, while this study looked at the diversity of clinical observations prior to the start of the graduate program. In this study, students without a personal history of hospitalization or the hospitalization of an immediate family member would still have exposure to multidisciplinary teams and interprofessional collaboration during clinical observation hours prior to the start of their graduate program.

The hypothesis that the completion of observation hours in different types of clinical settings would increase students' positive attitudes toward IPE was not supported by the study results. The diversity of clinical settings for observation experience that would expose the students to interprofessional interactions in the field did not influence their attitudes. This may be because students are focused on observing the professional of their program of interest, or it may be too early for the students to grasp the many interprofessional interactions that go on in different clinical settings.

This study has limitations of survey research; participants' responses may not be valid indicators of their actual feelings, beliefs, and actions. The study's small number of disciplines, single university sample, and small program size limit the generalizability of the results. Future studies should consider including more healthcare disciplines across multiple universities.

Implications for program development

The study results may have important implications for program development and course design. Given that previous coursework in undergraduate programs may not be associated with students' attitudes as they enter graduate programs, universities and programs may want to consider the amount of resources (in terms of finances and faculty time) invested in the development and coordination of undergraduate IPE as a preparation for graduate healthcare education.

A recent survey of IPE in physical therapy education indicated that faculty buy-in was the most frequent barrier to the development of an IPE curriculum, followed by

Journal of Research in
**Interprofessional
Practice and
Education**

Vol. 8.1
2018

www.jripe.org

institutional support for IPE [10]. As graduate-level interprofessional courses are developed, combining resources from different healthcare programs is a way to facilitate IPE course development and reduce financial burdens. Faculty developing IPE courses need not account for the differences in understanding and attitudes about IPE across disciplines, as indicated by this study and also the study by Broers et al. [25].

Conclusion

This study suggests that the program in which the students are enrolled does not influence their attitudes about IPE. Previous coursework or exposure to interprofessional interactions in diverse clinical observations settings may also not be associated with the students' attitudes toward IPE. The development of collaborative graduate IPE courses to meet accreditation requirements may be a way to better manage university resources. The students in this study, future healthcare professionals, are positive toward IPE and have the potential to bring this collaborative outlook to their patient care.

List of abbreviations

Institutional Review Board (IRB)
Interprofessional education (IPE)
Readiness for Interprofessional Learning Survey (RIPLS)
Statistical Package for the Social Sciences (SPSS)
Subscale (SS)

References

1. Deusinger, S.S.C., Burlis, Beth E., Stith, Tamara L., & Stith, Jennifer S. (2014). Meeting contemporary expectations for physical therapists: Imperatives, challenges, and proposed solutions for professional education. *Journal of Physical Therapy Education*, *28*(1), 56–61.
2. World Health Organization (WHO). (2010). Framework for action on interprofessional education & collaborative practice. Geneva: World Health Organization. URL: http://www.who.int /hrh/resources/framework_action/en/ [July 31, 2018].
3. Panel IECE. (2011). Core competencies for interprofessional collaborative practice: Report of an expert panel. Washington, DC: Interprofessional Education Collaborative.
4. American Physical Therapy Association. (2013). *Innovation summit: Collaborative care models.* URL: http://www.apta.org/InnovationSummit [July 31, 2018].
5. Gough, S., Hellaby, M., Jones, N., & MacKinnon, R. (2012). A review of undergraduate interprofessional simulation-based education (IPSE). *Collegian*, *19*(3), 153–170.
6. Baerg K.L., Lake, Deborah, & Paslwaski, Teresa. (2012). Survey of interprofessional collaboration learning needs and training interest in health professionals, teachers, and students: An exploratory study. *Journal of Research in Interprofessional Practice and Education*, *2*(2), 187–204.
7. Kahaleh, A.A., Danielson, J., Franson, K.L., Nuffer, W.A., & Umland, E.M. (2015). An interprofessional education panel on development, implementation, and assessment strategies. *American Journal of Pharmaceutical Education, 79*(6), 78.
8. Moran, M.C., Steketee, C., Forman, D., Dunston, R. (2015). Using a research-informed interprofessional curriculum framework to guide reflection and future planning of inteprofessional education in a multi-site context. *Journal of Research in Interprofessional Practice and Education*, *5*(1), 1–13.
9. Swisher, L.L., Woodard, L.J., Quillen, W.S., & Monroe, A.D.H. (2016). Centralized and decentralized organizational models of interprofessional education for physical therapist and medical students. *Journal of Physical Therapy Education*, *24*(1), 12–28.
10. Wise, H., Frost, J., Resnik, C., Davis, Beth, & Iglash, Annette. (2015). Interprofessional education: An exploration in physical therapist education. *Journal of Physical Therapy Education*, *29*(2), 72–83.

11. Hallin, K., Kiessling, A., Waldner, A., & Henriksson, P. (2009). Active interprofessional education in a patient based setting increases perceived collaborative and professional competence. *Medical Teacher*, *31*(2), 151–157.

12. Hamilton, S.S., Yuan, B.J., Lachman, N., Hellyer, N.J., Krause, D.A., Hollman, J.H., Youdas, J.W., & Pawlina, W. (2008). Interprofessional education in gross anatomy: Experience with first-year medical and physical therapy students at mayo clinic. *Anatomical Sciences Education*, *1*(6), 258–263.

13. Sheldon, M., Cavanaugh, J.T., Croninger, W., Osgood, W., Robnett, R., Seigle, J., & Simonsen, L. (2012). Preparing rehabilitation healthcare providers in the 21st century: Implementation of interprofessional education through an academic-clinical site partnership. *Work*, *41*(3), 269–275.

14. Shrader, S., Thompson, A., & Gonsalves, W. (2010). Assessing student attitudes as a result of participating in an interprofessional healthcare elective associated with a student-run free clinic. *Journal of Research in Interprofessional Practice and Education*, *1*(3), 218–230.

15. Medves, J., Paterson, M., Broers, T., & Hopman, W. (2013). The quipped project: Students' attitudes toward integrating interprofessional education into the curriculum. *Journal of Reseach in Interprofessional Practice and Education*, *3*(1), 3–14.

16. Keshtkaran, Z., Sharif, F., & Rambod, M. (2014). Students' readiness for and perception of interprofessional learning: A cross-sectional study. *Nurse Education Today*, *34*(6), 991–998.

17. Judge, M.P., Polifroni, E.C., Maruca, A.T., Hobson, M.E., Leschak, A., & Zakewicz, H. (2015). Evaluation of students' receptiveness and response to an interprofessional learning activity across health care disciplines: An approach toward team development in healthcare. *International Journal of Nursing Sciences*, *2*(1), 93–98.

18. Parsell, G., & Bligh, J. (1999). The development of a questionnaire to assess the readiness of health care students for interprofessional learning (RIPLS). *Medical Education*, *33*(2), 95–100.

19. Thannhauser, J., Russell-Mayhew, S., & Scott, C. (2010). Measures of interprofessional education and collaboration. *Journal of Interprofessional Care*, *24*(4), 336–349.

20. McFadyen, A.K., Webster, V., Strachan, K., Figgins, E., Brown, H., & McKechnie, J. (2005). The readiness for interprofessional learning scale: A possible more stable sub-scale model for the original version of ripls. *Journal of Interprofessaional Care*, *19*(6), 595–603.

21. Hertweck, M.L., Hawkins, S.R., Bednarek, M.L., Goreczny, A.J., Schreiber, J.L., & Sterrett, S.E. (2012). Attitudes toward interprofessional education: Comparing physician assistant and other health care professions students. *Journal of Physician Assistant Education*, *23*(2), 8–15.

22. Lakin, S., Levett-Jones, T., & Gilligan, C. (2013). Systematic review of the effectiveness of interprofessional education in health professional programs. *Nurse Education Today*, *33*(2), 90–102.

23. Fan, W., & Yan, Z. (2010). Factors affecting response rates of the web survey: A systematic review. *Computers in Human Behavior*, *26*(2), 132–113.

24. Hood, K., Cant, R., Baulch, J., Gilbee, A., Leech, M., Anderson, A., & Davies, K. (2014). Prior experience of interprofessional learning enhances undergraduate nursing and healthcare students' professional identity and attitudes to teamwork. *Nurse Education Practice*, *14*(2), 117–122.

25. Broers, T., Poth, C., & Medves, J. (2009). What's in a word? Understanding "interprofessional collaboration" from the students' perspective. *Journal of Research in Interprofessional Practice and Education*, *1*(1), 3–9.

Journal of Research in
**Interprofessional
Practice and
Education**

Vol. 8.1
2018

www.jripe.org