Tearing Down the Wall: Identification of Biases as a First Step in Preparing BSN, PA, and MD Students to Participate in an Interprofessional Education and Practice Curriculum.

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Introduction

- The Institute of Medicine's landmark study on patient care outcomes, "A Bridge to Quality," called for interprofessional education and practice that **prepares healthcare students from different healthcare professions to collaborate for optimal patient care and safety**.[1] Benefits of interprofessional education (IPE) include increased patient satisfaction and provider job satisfaction.[2,3,4]
- Despite this knowledge, IPE interventions are not widely instituted in health professions education.
- In July of 2013, the Liaison Committee on Medical Education (LCME) released a **common standard for IPE in the U.S.** due to the realization that collaboration will play a large role in the careers of students across the health professions.[5] More research is needed to demonstrate **what components, sequencing and frequency of IPE contribute the greatest values**.[5]

Specific Aims

[1] To collect and analyze survey data to determine if taking part in the **"Medical Wall"** program during health professions training has a significant positive effect on MD, BSN, and PA students' knowledge of and attitudes regarding the **values and ethics of interprofessional collaboration as it relates to patient care.**

[2] To determine if there is evidence for persistence of effect and value from curricular IPE interventions experienced in the 6 months directly following participation in the Medical Wall IPE intervention, and how this effect may be enhanced or mitigated by other curricular components.

[3] To analyze the performance of a validated IPE assessment tool in a novel IPE education setting.

Methods

- 193 MD, BSN and PA students randomized into intervention or control groups.
- Intervention: Two hour group activity to identify concepts, misperceptions, and stereotypes in healthcare, followed by discussion on awareness and rejection of stereotypes, and how this can better facilitate communication and team dynamics leading to improved patient-centered care and outcomes.
- Both intervention and control participants took the validated pre- and post "Readiness for Interprofessional Learning Scale" (RIPLS)* survey to determine if there was significant intervention impact.

*RIPLS scale: 19 question 5-point Likert scale stratified into 4 sub-scales (question numbers in brackets): Teamwork and Collaboration (1-9), Negative Professional Identity (10-12), Positive Professional Identity (14-16), and Roles and Responsibilities (17-19). Four mixed model ANOVAs were used to examine the main effects and interaction effects.

Results

Subscale	F Score	Significance
Teamwork		
Pre-Test vs Post-Test	16.46	0.000
Group Interaction	15.19	0.000
Negative Professional Identity		
Pre-Test vs Post-Test	9.21	0.003
Group Interaction	4.81	0.029
Positive Professional Identity		
Pre-Test vs Post-Test	36.46	0.000
Group Interaction	2.7	0.102
Roles and Responsibilities		
Pre-Test vs Post-Test	0.08	0.776
Group Interaction	0.64	0.424

Table 1: Mixed model ANOVA results. Significance set at <0.05.

The "The Medical Wall" IPE intervention resulted in significant improvement in the Teamwork and Negative Professional Identity subscale scores compared to controls (p value set at <0.05, Table 1, Figures 1 & 2). There was not a significant improvement in the Positive Professional Identity and Roles and Responsibilities subscale scores as compared to controls (Table 1, Figures 3 & 4).

Conclusions & Further Research

The results of the Medical Wall study indicate that participation in a brief IPE intervention is effective for enhancing Nursing, Physician Assistant, and Medical students' perceptions of teamwork, and reducing their sense of negative professional identity.

Areas for further research include:
- Analysis of follow-up survey to assess for extinction of effect.
- Repetition of The Medical Wall intervention with added health professions students: Nurse Practitioner, Social Work, Occupational/Physical Therapy, etc.
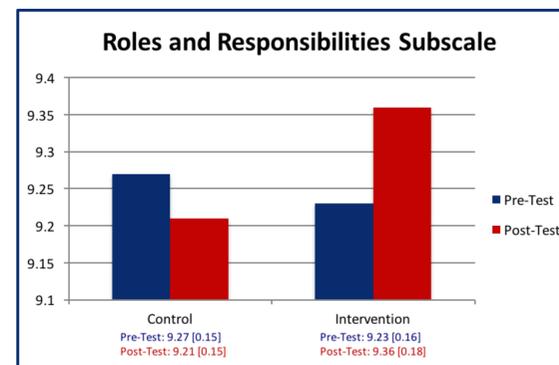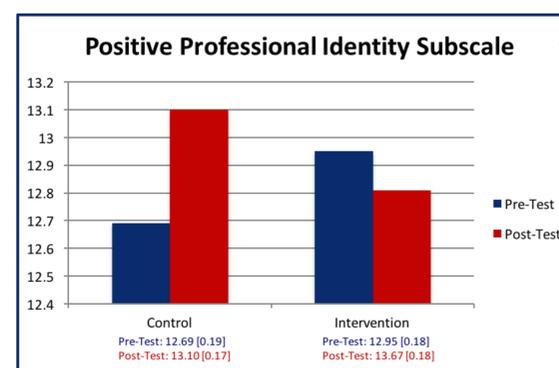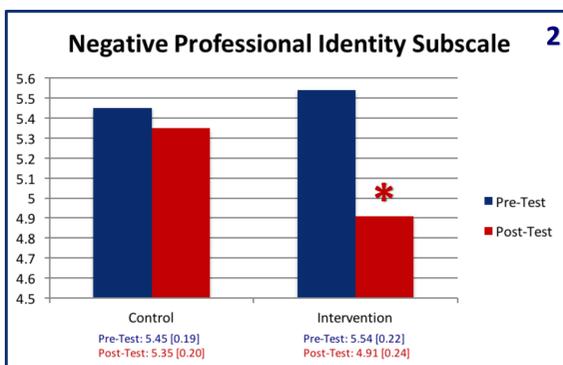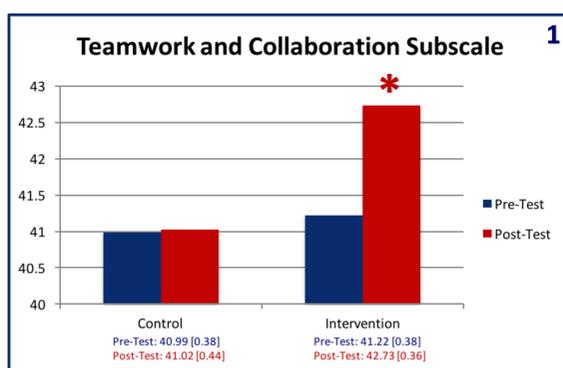- Use/comparison with other IPE assessment scales

References

1. Institute of Medicine. Health Professions Education: A bridge to quality. Washington, DC: National Academies Press; 2003.
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4. Reeves S, Perrier L, Goldman J, Freeth D, Zwarenstein M. Interprofessional education: Effects on professional practice and healthcare outcomes (update). *Cochrane Database Syst Rev*. 2013;3:CD002213.
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Acknowledgements

Teamwork and Collaboration Subscale (1)
Control Pre-Test: 40.99 [0.38] Post-Test: 41.02 [0.44]
Intervention Pre-Test: 41.22 [0.38] Post-Test: 42.73 [0.36]

Negative Professional Identity Subscale (2)
Control Pre-Test: 5.45 [0.19] Post-Test: 5.35 [0.20]
Intervention Pre-Test: 5.54 [0.22] Post-Test: 4.91 [0.24]

Positive Professional Identity Subscale (3)
Control Pre-Test: 12.69 [0.19] Post-Test: 13.10 [0.17]
Intervention Pre-Test: 12.95 [0.18] Post-Test: 13.67 [0.18]

Roles and Responsibilities Subscale (4)
Control Pre-Test: 9.27 [0.15] Post-Test: 9.21 [0.15]
Intervention Pre-Test: 9.23 [0.16] Post-Test: 9.36 [0.18]

*Figures 1-4. Mean [SEM] Pre-test and Post-test subscale scores for Intervention and Control groups. * Indicates significant result. Significance was set at <0.05. Significant differences identified in the Negative Professional Identity and Teamwork and Collaboration subscales for intervention groups.*