



# Providing care to an underserved older adult community utilizing an interprofessional education and practice opportunity with dental, pharmacy, and dental hygiene students.



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## BACKGROUND

Accreditation standards for pharmacy, dentistry, and dental hygiene, incorporate interprofessional education (IPE), which is essential for preparing practitioners for the effective teamwork required for community-based, patient-centered care of older adults. While there has been much growth in IPE programs across the pharmacy, dental, and dental hygiene disciplines, to advance interprofessional education and collaboration, there continues to be an unmet need for geriatric IPE, especially in community dwelling older adults living in underserved areas. Additionally, there is a lack of access to oral health care for older adults and pharmacy students are graduating without being sufficiently trained to care for older adults. In order to compensate for the dearth of literature on IPE experiences that focus on pharmacy and dental care for older adults, we endeavored to create a student-lead interdisciplinary clinic, focused on providing medication histories/reconciliations and dental screenings to address safe medication management and oral health disparities for older adults residing in underserved Boston, MA communities.

## OBJECTIVES

The aim of this study was to create a novel, intentional, and collaborative IPE experience for students from the, MCPHS School of Pharmacy – Boston, MCPHS Forsyth School of Dental Hygiene and Harvard School of Dental Medicine, and provide patient-centered care for older adults that would satisfy the IPEC Core Competencies and sub-competencies outlined within the accreditation standards. Our primary objective was to assess the impact of the intentional IPE activities on student communication, collaboration, understanding of roles and responsibilities, collaboration, teamwork, conflict resolution, and cultural competence. Our secondary objective was to assess patient-reported impact of the student-lead IPE clinics on their understanding of oral health/hygiene and medication adherence program.

## METHODS

- MCPHS IRB-approved survey-based research
- Collaborated with The Community Builders (TCB) Housing Complex in Boston, MA (Amory Street Apartments, Back of the Hill Apartments, and Woodbourne Apartments)
  - TCB is a non-profit, mixed-income intentional community
- Inclusion Criteria**
  - Students
    - ≥18 years old
    - Second year students matriculated in the MCPHS Forsyth School of Dental Hygiene
    - Fourth professional year students matriculated in the MCPHS School of Pharmacy – Boston
    - Fourth year students matriculated in the Harvard School of Dental Medicine
  - Patients
    - ≥65 years old
    - Resident in The Community Builders Housing Complex in Boston, MA
- Exclusion Criteria**
  - Anyone not meeting the inclusion criteria



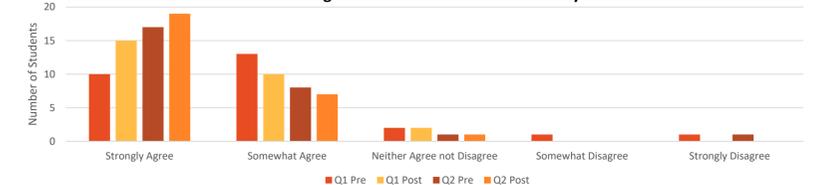
## RESULTS

**Figure 1. Interprofessional Collaborative Competencies Attainment Scale Revised (ICCAS) (N=27)\***

\*N represents completed corresponding pre- and post-surveys.



**Figure 2. Working with Older Adults Student Survey Fall 2023 (N=27)**



Rate your ability for each of the following statements:  
Q1. I am confident in treating the older adult patient on my own independently  
Q2. Learning about the older adult population is an important aspect of a curriculum in a health care program

## ICCAS Revised Questions

Rate your ability for each of the following statements:

### Figure 1a. Communication

Q1. Promote effective communication among members of an interprofessional (IP) team  
Q2. Actively listen to IP team members' ideas and concerns  
Q3. Express my ideas and concerns without being judgmental  
Q4. Provide constructive feedback to IP team members  
Q5. Express my ideas and concerns in a clear, concise manner

### Figure 1b. Collaboration & Collaborative Patient/Family Centered Approach

Q1. Seek out interprofessional (IP) team members to address issues  
Q2. Work effectively with IP team members to enhance care  
Q3. Learn with, from and about IP team members to enhance care  
Q4. Use an interprofessional (IP) team approach with the patient to assess the health situation  
Q5. Use an IP team approach with the patient to provide whole person care  
Q6. Include the patient/family in decision-making

### Figure 1c. Roles & Responsibilities

Q1. Identify and describe my abilities and contributions to the interprofessional (IP) team  
Q2. Be accountable for my contributions to the IP team  
Q3. Understand the abilities and contributions of IP team members  
Q4. Recognize how others' skills and knowledge complement and overlap with my own

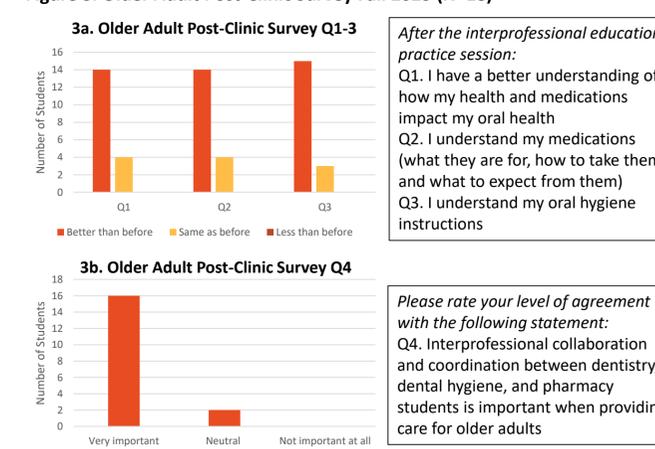
### Figure 1d. Conflict Management & Resolution

Q1. Actively listen to the perspectives of interprofessional (IP) team members  
Q2. Take into account the ideas of IP team members  
Q3. Address team conflict in a respectful manner

### Figure 1e. Team Functioning

Q1. Develop an effective care plan with interprofessional (IP) team members  
Q2. Negotiate responsibilities within overlapping scopes of practice

**Figure 3. Older Adult Post-Clinic Survey Fall 2023 (N=18)**



- 50 total student participants in Fall 2023 clinics
  - Dental hygiene = 30
  - Pharmacy = 18
  - Dental = 2
- Survey response rate (pre + post surveys) = 54%

## STUDENT REFLECTIONS

|                                |  |
|--------------------------------|--|
| <b>Pharmacy Students</b>       | It was impactful to see, firsthand, patients with health disparities that were not on my radar before participating and help serve patients who had hearing and visual impairments. I am so appreciative of this opportunity to work collaboratively with students in the dental field and I will utilize the lessons learned today as I progress in my career as a pharmacist.  |
| <b>Dental Hygiene Students</b> | Through this experience, I learned the importance of teamwork in improving community health. Working with pharmacy and dental students expanded my knowledge of how medication impacts oral health, particularly the link between dry mouth and certain drugs. The positive feedback from the community showed that engaging with them can raise awareness about oral health. This event emphasized the importance of preventive care and community involvement in promoting better health.  |
| <b>Dental Students</b>         | Providing dental care directly to senior citizens in their own homes has been a truly enriching experience. I really enjoyed my time working with Dr. Thompson and the MCPHS team, where I not only learned more about portable dentistry but also had a chance to work alongside pharmacy and dental hygiene students. This experience really emphasized the importance of interdisciplinary care in ensuring the best outcomes for patients and it was a true team effort, where each member's expertise contributed to a holistic approach in our patient's health. |

## CONCLUSIONS

- The results presented herein represent the interim results from our Fall 2023 iterations of our IPE clinics.
- On average, higher scores in students' post surveys compared to their pre surveys. This trend was noticeable across all categories and questions within each category.
- The student-led IPE clinics that we provided for residents of three buildings within TCB Housing Complex was effective in making the residents more aware of their oral health, oral hygiene, how their medications might impact their oral health, and provided them an opportunity to learn more about medication adherence and medication-related adverse events.

## FUTURE DIRECTIONS

- A more comprehensive presentation of baseline characteristics, study results, statistical analysis, and study strengths/limitations will be presented as in a formalized publication in a peer reviewed journal.

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**Disclosures**  
The authors have nothing to disclose concerning possible financial or personal relationships with commercial entities.

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