

## Educating Health Professions Students About Older Adults: Results From the Age-Friendly Students Senior Connection

Jo Marie Reilly, MD, MPH | Devika Chandramohan, MD | Jeanine Yonashiro-Cho, PhD

PRiMER. 2025;9:6.

Published: 2/24/2025 | DOI: 10.22454/PRiMER.2025.121114

### Abstract

**Introduction:** The Age-Friendly Student Senior Connection (AFSSC) is a graduate-level interprofessional (IP) health student service-learning effort launched early in the COVID-19 pandemic to connect older adults to students providing both social support and health resources to seniors through dyad phone calls between IP health students and community-dwelling elderly. Our study aimed to examine changes in students' attitudes toward older adults after participation in the program.

**Methods:** IP graduate health students were paired with community-dwelling older adults to engage in weekly remote interactions over a 6 to 10-week period. Students completed a postparticipation online survey that included an open-ended qualitative question about program impact on challenging or reinforcing their preconceived notions about older adults. We used descriptive statistics to characterize participants, and conducted thematic content analysis to inductively explore student-reported lessons learned.

**Results:** Students reported that program participation challenged their preconceived notions of older adults and aging. Commonly identified themes included resilience, continued activity, and social interactions among older adults, observations about health conditions, and the early impact of the COVID-19 pandemic on older adults.

**Conclusions:** Study findings demonstrate the positive effects of the AFSSC on health professions students' attitudes toward and perceptions of older adults. Student participation in intergenerational service-learning programs may reduce negative elderly stereotypes by challenging preconceived notions and improving student understanding and appreciation of older adults.

### Introduction

Primary care involves caring for older adults. Geriatrics training for interprofessional (IP) primary care teams is vital and the current workforce is insufficient to meet these needs.<sup>1</sup> A systematic literature review suggests that medical students view elderly patients as complex and intimidating.<sup>2</sup> Increased knowledge about older adults may improve health professionals' ageism, improving their care.<sup>3</sup>

Health professions students who were initially intimidated by older adult patients found the challenge

“rewarding” after receiving elderly-care training. Improved student attitudes correlated with greater geriatric interest.<sup>2</sup> Multiple health science programs demonstrated favorable student attitudes after working directly with older adults.<sup>4-9</sup>

Few studies document IP health students’ older adult virtual/audio interactions.<sup>10-11</sup> The studies reported have been almost exclusively with medical students.<sup>12-14</sup> The COVID-19 pandemic limited in-person geriatric health visits.<sup>15</sup> To address elderly loneliness and social isolation, the Keck School of Medicine of USC (KSOM) Family Medicine Department launched the Age-Friendly Student Senior Connection (AFSSC), a graduate, interprofessional (IP) health professions student effort to: (1) provide social support to community-dwelling older adults, (2) create elderly longitudinal relationships, and (3) introduce students to geriatric health/resource needs.<sup>13</sup> This study examined changes in health professions students’ elderly attitudes after AFSSC.

## Methods

---

### *Participants*

Participants were master’s and doctoral-level IP students from the University of Southern California (USC), enrolled in medicine, dentistry, physician assistant, occupational therapy, physical therapy, social work, pharmacy, or psychology. In spring 2020, program participants were recruited through class-wide emails and student interest group list serves to “connect USC health professions students with older adults.” Recruited students watched prerecorded video trainings on older adult communication (48 minutes).

### *Intervention*

Each student was paired with an older adult, recruited from the community, who was at least 65 years old, without documented cognitive impairment, and spoke English. The dyads communicated remotely via phone/videoconferencing for at least 30 minutes weekly, but not more than 90 minutes, for 6-10 weeks. Duration of interactions varied based on participants’ availability. Students attended weekly Zoom debrief sessions discussing their experiences with an IP geriatrics faculty facilitator, received weekly communication tips, and utilized a senior referral database. Students did not dispense medical advice; rather, they encouraged their partners to contact their primary care providers for health concerns. Trained faculty facilitators were on call for emergencies. Detailed program information has been previously published.<sup>17</sup> While not measured, dyads were given the option to stay in contact poststudy.

### *Measurements*

Students completed a program registration form, providing personal information and their participation goals. This study received a USC Institutional Review Board approval (HS-16-00633). After the program’s conclusion, students received a quantitative and open-ended qualitative question survey<sup>17-21</sup> to complete on their experience with their older adults. They also provided proxy older adult partner demographic information. We analyzed one qualitative, open-ended question that asked, “What did you learn that contradicted and/or reinforced your preconceived notions about older adults?” in this study. Additional data have been previously reported.<sup>17</sup>

### *Analysis*

Descriptive statistics described participant demographic characteristics and reasons for program participation. Two coders (D.C. and J.Y.C) independently conducted thematic content analysis of the open-ended survey question querying student change in perception, inductively identifying commonalities in survey responses. The coders discussed and resolved interrater coding differences to achieve a 95% concordance rate.

## Results

---

Data were available from 46 IP students, representing a subset (38.6%) of program participants. We found no statistically significant differences between respondents and nonrespondents across age, gender, race, and discipline of study.

Participants (Table 1) were mostly women (78.3%) between the ages of 20-29 years (73.9%) and mostly Asian/Pacific Islander (47.8%) and White (37.0%), reflecting the gender and ethnicity of our graduate health professional student population. Overwhelmingly, 91.3% of students volunteered to participate in the program to “help vulnerable individuals.” Participants also learned to work with (54.4%) or enjoyed spending time with older adults (54.4%). Several students spent free time in AFSSC to help others (21.7%) and fill clinical time lost to social distancing restrictions (17.4%). Their older adult partners were mostly female (87%), living alone (73.3%), and between the ages of 70-84 years (61.0%).

Through their experiences, students reported (Table 2) recognition of older adults’ resilience, activity level, social interactions, and health, noting how observed symptoms varied from their preconceived notions. Students also discussed their partners’ experiences during the early months of the COVID-19 pandemic, highlighting both their resilience and hardships.

## Conclusions

---

Results suggest IP graduate health professions students’ older adult perceptions may become more positive with participation in intergenerational, phone-based service-learning programs. Student response themes suggest that negative older adult perceptions persist in society but may improve through meaningful elderly interactions. Providing students with geriatric educational training may improve patient care quality.

Students volunteering to help vulnerable individuals (91.3%), may have entered the program with negative elderly stereotypes/perceptions consistent with benevolent ageism,<sup>22</sup> a paternalistic view that older adults are frail, less competent, and require special accommodations/protection. Challenging these beliefs enables IP students to recognize the diversity in aging and support healthy older adults’ aging and independence in future clinical practice.

Study limitations included possibly underidentifying changes in student perceptions. Because students were asked to remember and report on potentially negative perceptions of older adults prior to program involvement, responses were subject to recall bias and social desirability issues. This may have made them less likely to admit to having ageist beliefs, resulting in underreporting of positive change, overreporting of neutral responses, and lowering response rates. Pandemic issues also limited study follow-up with some students.

This study found that IP health graduate students and older adults engagement challenged students’ negative preconceived notions about aging and the geriatric population. Introduction of weekly, student-older adult telephone/audio interactions was a novel teaching approach necessitated by the pandemic and holds promise for continued geriatric education use. Future studies should consider whether student preconceived notions of older adults is informed by their ethnic/racial and gender backgrounds. Work is needed to more broadly implement the IP geriatric program, assess program efficacy, the magnitude of intervention necessary to challenge stereotypes, and to foster positive attitudes toward aging older adults.

## Tables and Figures

---

**Table 1. Characteristics Describing Age-Friendly Student-Senior Connections Program Participants, by Student Report (N=46)**

	<i>n</i>	%
<b>Student characteristics</b>		
<b>Age</b>		
20-24 years	11	23.9
25-29 years	23	50
30+ years	12	26.1
<b>Gender</b>		
Female	36	78.3
<b>Race/ethnicity</b>		
White	17	37
Black	3	6.5
Hispanic	7	15.2
Asian/Pacific Islander	22	47.8
Other	1	2.2
<b>Discipline</b>		
Medicine	8	17.4
Occupational therapy	7	15.2
Pharmacy	5	10.9
Physical therapy	8	17.4
Physician assistant	7	15.2
Psychology	2	4.4
Social work	8	17.4
Other	1	2.2
<b>Reasons for program interest</b>		
Help vulnerable individuals	42	91.3
Learn about working with older adults	26	56.5
Enjoy spending time with older adults	25	54.4
Work and/or plan to work with older adults	22	47.8
Have a lot of free time & want to help others	10	21.7
Want to fill clinical time lost to COVID-19	8	17.4
Other reason	1	2.2
<b>Older adult characteristics</b>		
<b>Age</b>		
65-69 years	1	2.4
70-74 years	10	24.4
75-79 years	8	19.5
80-84 years	7	17.1
85-89 years	5	12.2
90+ years	10	24.4
<b>Gender</b>		
Female	40	87
<b>Lives alone</b>		
	33	73.3

\*Note: Data were missing on older adult participant age (*n*=5) and living arrangement (*n*=1)

**Table 2. Themes Arising from Student Reflections on Ways Program Participation Challenged Their Preconceived Notions About Older Adults**

Theme	Example
<p><b>Resilience</b></p> <p>Older adult's ability to deal with difficult situations</p>	<p>"My older adult's <b>resilience</b>, health, and life organization were very surprising."            "I learned that <b>not all seniors are frail in spirit</b>. If not for the natural physical waning, seniors are the best buddy one could have. Their experience, wisdom, strength, spirit, and etc, are invaluable."            "The older adult I was in contact with demonstrated her <b>resiliency through her pre-established connections with family, her community, and her sense of purpose in life.</b>"</p>
<p><b>Activity level</b></p> <p>How older adults spend their time, staying involved in work/hobbies</p>	<p>"I learned that <b>older adults can be highly functional when nearing age 90 and even throughout their 90s and beyond</b>. They can drive, cook for themselves, garden, learn how to use new technology, go on dates, and go out to bars with their friends. Prior to this experience, I did not personally know any older adults who were this capable of performing daily tasks in their 80s or older."            "My older adult was very inspiring and actually gave me a really good picture of what it means to <b>stay active and age well.</b>"            "My relationship with my older adult reinforced the notion that <b>an older adult can have fulfilling second and third careers and lives together.</b>"</p>
<p><b>Social interaction</b></p> <p>Older adults' social network/ how they maintain social connections</p>	<p>"I always thought that once an individual retires they just spend their time traveling but <b>my partner was heavily involved in her community and has an amazing social support group.</b>"            "I had the idea that many older adults lived relatively slow paced lives. This was definitely not the case for my older adult. <b>She is very active in her community and has a much more active social life than I do as a grad student.</b>"            "That <b>older adults need to have strong social networks</b> just as much as any other age group."</p>
<p><b>Health</b></p> <p>Older adults' physical, mental, and cognitive health</p>	<p>"I also expected someone of my older adult's age to have more cognitive function issues, but she only had mild word-finding difficulty."            "I learned that even a much older adult (92 years old) can have acute manifestation of lifelong psychiatric symptoms and may seek inpatient treatment."            "One thing that was both a contradiction and a reinforcement was my partner's memory. There were some things that she seemed to consistently forget (in terms of times when I would call her) but then she could remember my birthday and other very specific things that I had only mentioned once."</p>
<p><b>COVID-19 and older adults</b></p> <p>The experience of older adults in the first months of the COVID-19 pandemic</p>	<p>"I learned that [older adults] are also coming up with their own coping mechanisms during this time."            "The older adult I was in contact with demonstrated her resiliency through her preestablished connections with family, her community, and her sense of purpose in life. <b>This contradicted my belief that older adults were mostly lonely during this coronavirus era.</b>"            "Older adults are not so different from younger adults, and many of the common misconceptions about aging do not apply. <b>The COVID-19 pandemic is really highlighting the vulnerability of our older adult population, and I hope that we are able to create new programs and systems to care for their health and well-being moving forward.</b>"            "These older adults have seen and experienced more than any of younger people can imagine. Listening to her speak about her experiences growing up and her friends being shipped off to war was so amazing because <b>she explained that this pandemic is nothing.</b>"            "My older adult really seeks out personal connection, something we all need. <b>Without her typical friends and groups she is a part of, she was left with little connection. It feels as though this population is most affected from Covid due to limited access and ability to engage in their occupations.</b>"</p>
<p><b>Other lessons</b></p> <p>Topics including: generational differences, wisdom, and communication</p>	<p>"I think perhaps that they think millennials' views are worthless - but <b>in actuality [older adults] are quite interested in learning what young people have to say!</b>"            "I had reinforcement of notion that <b>older adults have valuable wisdom</b>. The senior I was paired with shared life experiences and reflections that were very meaningful and insightful to hear about."            "Hearing how different everyone's partners are and how different our interactions have been at the weekly group meetings demonstrated that <b>it is important not to hold any preconceived notions about older adults.</b>"            "I learned how important it is to <b>communicate to them that you are listening while not interrupting.</b>"</p>

## Acknowledgments

**Presentations:** This study was presented at the Society of Teachers of Family Medicine 2021 Annual Spring

Conference, May 2021 (virtual), and the USC Family Medicine Research Day, February 1, 2023 (Los Angeles).

**Disclaimer:** Dr Yonashiro-Cho's work was supported by the National Center for Advancing Translational Science (NCATS) of the National Institutes of Health under award number KL2TR001854 (for salary, fringe, research supplies, and administrative/co-curricular activities) and UL1TR001855 (for administrative/co-curricular activities). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

## Corresponding Author

Jo Marie Reilly, MD, MPH

Department of Family Medicine, Keck School of Medicine, University of Southern California, Los Angeles, CA

[jomarie.reilly@med.usc.edu](mailto:jomarie.reilly@med.usc.edu)

## Author Affiliations

Jo Marie Reilly, MD, MPH - Department of Family Medicine, Keck School of Medicine, University of Southern California, Los Angeles, CA

Devika Chandramohan, MD - Department of Family Medicine, Keck School of Medicine, University of Southern California, Los Angeles, CA | University of California, Irvine, Department of Family Medicine, Orange, CA

Jeanine Yonashiro-Cho, PhD - Department of Family Medicine, Keck School of Medicine, University of Southern California, Los Angeles, CA

## References

1. van Zuilen MH, Granville LJ. Playing the long game: addressing the shortage of geriatrics educators. *J Am Geriatr Soc.* 2019;67(4):647-649. doi:10.1111/jgs.15901
2. Meiboom AA, de Vries H, Hertogh CPM, Scheele F. Why medical students do not choose a career in geriatrics: a systematic review. *BMC Med Educ.* 2015;15(1):101. doi:10.1186/s12909-015-0384-4
3. Palsgaard P, Maino Vieytes CA, Peterson N, et al. Healthcare professionals' views and perspectives towards aging. *Int J Environ Res Public Health.* 2022;19(23):15870. doi:10.3390/ijerph192315870
4. Reilly JM, Stevens G, Halle A, et al. Interprofessional, older adult, team-based home visits: a 6-year prospective analysis. *Gerontol Geriatr Educ.* 2020;(May). doi:10.1080/02701960.2020.1758081
5. Reilly JM, Halle A, Resnik C, et al. Qualitative analysis of an inter-professional, in-home, community geriatric educational training program. *Gerontol Geriatr Med.* 2021;7(Feb):2333721421997203. doi:10.1177/2333721421997203
6. Mendoza De La Garza M, Tieu C, Schroeder D, Lowe K, Tung E. Evaluation of the impact of a senior mentor program on medical students' geriatric knowledge and attitudes toward older adults. *Gerontol Geriatr Educ.* 2018;39(3):316-325. doi:10.1080/02701960.2018.1484736
7. Gonzales E, Morrow-Howell N, Gilbert P. Changing medical students' attitudes toward older adults. *Gerontol Geriatr Educ.* 2010;31(3):220-234. doi:10.1080/02701960.2010.503128
8. Milutinović D, Simin D, Kacavendić J, Turkulov V. Knowledge and attitudes of health care science students toward older people. *Med Pregl.* 2015;68(11-12):382-386. doi:10.2298/MPNS1512382M
9. Basran JFS, Dal Bello-Haas V, Walker D, et al. The longitudinal elderly person shadowing program: outcomes from an interprofessional senior partner mentoring program. *Gerontol Geriatr Educ.* 2012;33(3):302-323. doi:10.1080/02701960.2012.679369
10. Ross L, Jennings P, Williams B. Improving health care student attitudes toward older adults through educational interventions: A systematic review. *Gerontol Geriatr Educ.*

2018;39(2):193-213. doi:10.1080/02701960.2016.1267641

11. Moonen G, Perrier L, Meiyappan S, Akhtar S, Crampton N. COVID-19 pandemic partnership between medical students and isolated elders improves student understanding of older adults' lived experience. *BMC Geriatr.* 2022;22(1):636. Published 2022 Aug 2. doi:10.1186/s12877-022-03312-z.
12. Fukuma N, Reilly JM. Geriatrics education: phone calls with older adults and medical students. *Fam Med.* 2023;55(7):471-475. Doi:10.22454/FamMed.149721 .
13. Burnett J, Broussard J, Savitz S, et al. Health professional student-led social phone calls to address loneliness in aging -in-place adults after stroke. *Innovations in Aging.* December 2023. 7(Supplement\_1):1052-1057. doi:10.1093/geroni/igad104.3380.
14. Nathanson M, Rau S, Jiang E, Phyllis S. Friendly calls to seniors: an interprofessional student volunteer program. *Am J of Ger Psych.* 2021. 29 (4): S130-S132. doi:10.1016/j.jagp.2021.01.126
15. Office EE, Rodenstein MS, Merchant TS, Pendergrast TR, Lindquist LA. Reducing social isolation of seniors during COVID-19 through medical student telephone contact. *J Am Med Dir Assoc.* 2020;21(7):948-950. doi:10.1016/j.jamda.2020.06.003
16. United Nations. COVID-19 and Older Persons: A Defining Moment for an Informed, Inclusive and Targeted Response. Accessed August 3, 2020. <https://www.un.org/development/desa/ageing/news/2020/05/covid19/>.
17. Joosten-Hagye D, Katz A, Sivers-Teixeira T, Yonshiro-Cho J. Age-friendly student senior connection: students' experience in an interprofessional pilot program to combat loneliness and isolation among older adults during the COVID-19 pandemic. *J Interprof Care.* 2020;34(5):668-671. doi:10.1080/13561820.2020.1822308
18. Karel MJ, Knight BG, Duffy M, Hinrichsen GA, Zeiss AM. Attitude, knowledge, and skill competencies for practice in professional geropsychology: implications for training and building a geropsychology workforce. *Train Educ Prof Psychol.* 2010;4(2):75-84. doi:10.1037/a0018372
19. Koren ME, Hertz J, Munroe D, et al. Assessing students' learning needs and attitudes: considerations for gerontology curriculum planning. *Gerontol Geriatr Educ.* 2008;28(4):39-56. doi:10.1080/02701960801963029
20. Rogers AT, Gualco KJ, Hinckle C, Baber RL. Cultivating interest and competency in gerontological social work: opportunities for undergraduate education. *J Gerontol Soc Work.* 2013;56(4):335-355. doi:10.1080/01634372.2013.775989
21. Cowen AS, Keltner D. Self-report captures 27 distinct categories of emotion bridged by continuous gradients. *Proc Natl Acad Sci USA.* 2017;114(38):E7900-E7909. doi:10.1073/pnas.1702247114
22. Cary LA, Chasteen AL, Remedios J. The Ambivalent Ageism Scale: developing and validating a scale to measure benevolent and hostile ageism. *Gerontologist.* 2017;57(2):e27-e36. doi:10.1093/geront/gnw118

Copyright © 2025 by the Society of Teachers of Family Medicine