

Oregon Health & Science University  
School of Medicine

**Scholarly Projects Final Report**

**Title** *(Must match poster title; include key words in the title to improve electronic search capabilities.)*

The Impact of the Geriatric Care ECHO Curriculum on Primary Care Provider Burnout and Resilience

**Student Investigator's Name**

**Date of Submission** *(mm/dd/yyyy)*

**Graduation Year**

**Project Course** *(Indicate whether the project was conducted in the Scholarly Projects Curriculum; Physician Scientist Experience; Combined Degree Program [MD/MPH, MD/PhD]; or other course.)*

Scholarly Projects Curriculum

**Co-Investigators** *(Names, departments; institution if not OHSU)*

**Mentor's Name**

**Mentor's Department**

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## Concentration Lead's Name

## Project/Research Question

How does participation in a Geriatrics Care ECHO tele-mentoring program affect burnout and resilience among primary care providers working with older adults?

## Type of Project *(Best description of your project; e.g., research study, quality improvement project, engineering project, etc.)*

## Key words *(4-10 words describing key aspects of your project)*

## Meeting Presentations

*If your project was presented at a meeting besides the OHSU Capstone, please provide the meeting(s) name, location, date, and presentation format below (poster vs. podium presentation or other).*

Oregon Geriatrics Society poster competition, October 2022  
Sunriver, OR

## Publications *(Abstract, article, other)*

*If your project was published, please provide reference(s) below in JAMA style.*

## Submission to Archive

*Final reports will be archived in a central library to benefit other students and colleagues. Describe any restrictions below (e.g., hold until publication of article on a specific date).*

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## Next Steps

*What are possible next steps that would build upon the results of this project? Could any data or tools resulting from the project have the potential to be used to answer new research questions by future medical students?*

- Develop an ECHO course related specifically to methods of reducing primary care provider burnout and building resilience.
- The Maslach Burnout Inventory and Brief Resilience Scale can be used to evaluate levels of burnout and resilience in other medical specialties and populations.

**Please follow the link below and complete the archival process for your Project in addition to submitting your final report.**

[https://ohsu.ca1.qualtrics.com/jfe/form/SV\\_3ls2z8V0goKiHZP](https://ohsu.ca1.qualtrics.com/jfe/form/SV_3ls2z8V0goKiHZP)

**Student's Signature/Date** *(Electronic signatures on this form are acceptable.)*

*This report describes work that I conducted in the Scholarly Projects Curriculum or alternative academic program at the OHSU School of Medicine. By typing my signature below, I attest to its authenticity and originality and agree to submit it to the Archive.*

X

\_\_\_\_\_  
Student's full name

**Mentor's Approval** *(Signature/date)*

X

\_\_\_\_\_  
Mentor Name

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**Report:** Information in the report should be consistent with the poster, but could include additional material. Insert text in the following sections targeting 1500-3000 words overall; include key figures and tables. Use Calibri 11-point font, single spaced and 1-inch margin; follow JAMA style conventions as detailed in the full instructions.

## Introduction (≥250 words)

Over the next decade the United States will see an increase in older adult patients (69 million up from 40.3 million in 2010) and an increase in overall patient condition complexity with two out of three older adults managing multiple chronic medical conditions.<sup>1,2</sup> The rate at which geriatric medicine trained providers are completing training is insufficient to address the projected needs of this growing population. It is anticipated that the care of older adults will fall increasingly to non-geriatric fellowship trained providers who are guided by geriatric principles, yet the dissemination of these principles to the large primary care workforce will take time and mentorship.<sup>3</sup>

Caring for older adults can increase primary care provider (PCP) burnout due to patient complexity, lack of experience and minimal resources. Mitigating burnout and fostering resilience helps with overall PCP well-being. The Project Extension for Community Healthcare Outcomes (ECHO) model provides the opportunity to decentralize knowledge by engaging specialist teams to teach (virtually) local and regional providers about content ranging from addiction medicine to child psychiatry. ECHO utilizes a format of structured didactic presentation followed by a participant-driven case consultation for group discussion. The ECHO model's goal is to move knowledge instead of people to allow for patients to be treated by their medical homes. Geriatric medicine focused ECHO programs have been developed to train healthcare teams to care for older adults in multiple settings. The ECHO model could affect burnout through resource sharing and peer-support while utilizing a bidirectional "all teach all learn" mentorship model. Oregon's "Geriatric Care in an Age Friendly Health System ECHO ("Geri ECHO") is a tele-mentoring program aimed to increase Oregon PCPs' capacity to care for older adults in their local clinics by combining geriatric specialist-led didactics with group case discussions.

Currently, there is no known study addressing how ECHO participation affects PCP burnout and resilience. This study looks at the intersection of burnout, resilience and tele-mentorship for PCPs caring for older adults. The objective of this study was to evaluate if Geri ECHO participation changed Oregon PCPs' self-reported feelings of burnout and resilience caring for older adults.

## Methods (≥250 words)

Our mixed-methodology pre-post survey and interview-based study examined change in PCP burnout and resilience following Geri ECHO participation. The Oregon ECHO Network recruited PCPs and primary care teams (including physicians, physician assistants, nurse practitioners, nurses, social workers, behavioral health specialists and medical assistants) from Oregon and Southwest Washington to participate in a 12-session, 7-month Geri ECHO for Oregon PCPs led by a 6-person interprofessional (MD, DO, RN, SW, PT, PharmD) geriatric care team. Participants joined a Zoom-based case conference call at the start of each session, which included a 15 minute didactic on a geriatric-focused topic related to the age-friendly health system's "4Ms" of mentation, mobility, medications and what matters. Topics were diverse, including management of mental health diagnoses, pain, polypharmacy, and falls

For the Burnout and Resilience Study, we administered pre- and post-Geri ECHO study metrics including open-ended questions on provider perceived burnout and resilience, the Maslach Burnout Inventory (MBI) and the Brief Resilience Scale (BRS).<sup>4,5</sup> The MBI has demonstrated validity within multiple

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populations, including healthcare professionals and is considered the gold standard for measuring burnout. The MBI Human Services Survey for Medical Personnel version is a 22-item instrument that has demonstrated validity in measuring healthcare provider burnout. The MBI includes 3 sub-scales: Emotional Exhaustion, Depersonalization, and Personal Accomplishment. The BRS was developed in 2008 to assess the ability to “bounce back” and recover from stressors. As a 6-item, Likert-scale instrument, the BRS provides self-assessment of individuals with lower scores indicating lower resilience, but no specific “cutoff” scores for levels of resilience. REDCap housed the surveys and associated database.

We informed all Geri ECHO participants of this sub-study on burnout and resilience and gave participants the opportunity to opt-out of study participation. Some PCPs participated in an optional semi-structured phone interview discussing feelings of burnout and resilience after completing the Geri ECHO.

We ran pre-post paired T-test analyses on MBI and BRS data; descriptive statistics were collated. We transcribed interviews using Rev.com and conducted open qualitative coding using qualitative analysis software (Dedoose) based on common themes related to burnout and resilience factors affected by PCP practice and Geri ECHO participation.

## Results (≥500 words)

Thirty-six PCPs participated in Geri ECHO from 17 Oregon counties and one SW Washington county. Twenty-five PCPs participated in the Burnout and Resilience sub-study. Fourteen (out of 25 total) participants completed all components of the Burnout and Resilience pre-and post-course surveys including open-ended questions, Maslach Burnout Inventory, Brief Resilience Scale and post-course semi-structured interview. Of the 25 respondents, 14 were included in the MBI data, 18 were included in the BRS data and 15 were included in the open-ended questions and semi-structured interview data; other respondents did not complete the entirety of the data set and were excluded from analysis.

The twenty-five participants of the Burnout and Resilience study represented 7 rural, 3 frontier and 14 urban counties across Oregon and 1 urban county in SW Washington. These participants held different degrees and licensures including 5 MDs, 1 MD/Other, 4 NDs, 1 M.Ed, 2 PAs, 4 NPs, 1 PharmD, 2 BSN/RNs, 3 LCSWs, 1 BA staff member, and 1 Other staff member. Twenty-three participants identified as female. Two participants identified as male. Eighteen participants identified as White, 1 identified as White; Hispanic or Latinx, 1 identified as Latinx, 2 identified as Asian American, 1 identified as Middle Eastern, and 2 preferred not to list their race/ethnicity.

Quantitative data is summarized in Table 1. We saw no significant positive change in burnout based on the MBI burnout subscales of Emotional Exhaustion ( $p=0.20$ ) or Depersonalization ( $p=0.42$ ) after participation in Geri ECHO. We also saw no significant positive change in resilience based on BRS scores among participants ( $p=0.27$ ). The Personal Accomplishment subscale of the MBI did show a significant decrease after participation in Geri ECHO ( $p=0.02$ ).

Qualitative coded data from both open-ended questions and interview transcripts demonstrated themes of burnout primarily attributed to lack of time, resources and knowledge when working with older adults patients pre-Geri ECHO. Post-Geri ECHO participants reported a mixture of both no change and decreased feelings of burnout. However, post-Geri ECHO interviews highlighted increased perceived resilience related to feelings of collaboration within the ECHO cohort, empowerment to care for older adults, increased knowledge related to caring for older adults, and access to older adult community resources post Geri ECHO (see Table 2).

In summary, our quantitative data did not demonstrate a significant improvement in burnout after participation in Geri-ECHO; however, our qualitative data suggests some subjective improvement in both burnout and resilience as a result of participation in the Geri-ECHO.

Table 1: MBI & BRS Pre-Post Data Summary

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Subscale	Pre	Post	p-value
Emotional Exhaustion	2.65	2.83	0.20
Depersonalization	0.89	0.84	0.42
Personal Accomplishment	5.20	4.99	0.02
Resilience	3.69	3.75	0.27

Table 2: Participant feedback on burnout and resilience related to Geri ECHO

Theme	Quotes from Participant Comments
<b>Burnout</b>	<ul style="list-style-type: none"> <li>• <i>“Social determinants of health are overwhelming for our clinic”</i></li> <li>• <i>“There is never enough time and/or resources”</i></li> <li>• <i>“Most of it has to do with the charting, prior authorizations, DME paperwork, home health and nursing home paperwork, and all the other non-patient care activities that eat up so much of the time”</i></li> </ul>
<b>Resources</b>	<ul style="list-style-type: none"> <li>• <i>“...give (sic) me a piece of mind that I know that I have the tools that I can use.”</i></li> <li>• <i>“Gave me ideas to improve our practice.”</i></li> <li>• <i>“...access to resources, whether it was online or some of the providers on the ECHO course directed me to some Salem specific things that I could get.”</i></li> </ul>
<b>Empowerment</b>	<ul style="list-style-type: none"> <li>• <i>“I feel more qualified to care for my seniors”</i></li> <li>• <i>“...feel more comfortable providing care for my elderly patients which will reduce time spent on admin &amp; consult calls.”</i></li> <li>• <i>“And I feel like I can better take the walk with my seniors. Me understanding can help them feel empowered.”</i></li> </ul>

## Discussion (≥500 words)

Multiple factors contribute to PCP burnout with older adult patients, but skills that foster resilience in caring for older adults could be beneficial to PCPs to improve overall wellness. The ECHO model of tele-mentorship provided tools to foster resilience among primary care providers who work with older adults. While there was no significant positive change in burnout or resilience gathered from quantitative MBI and BRS data, our qualitative data suggests PCPs felt less burnout and expressed qualities of resilience after Geri ECHO participation. It is notable that participants already had an average level of resilience before starting the Geri ECHO. Positive changes from ECHO participation seemed to focus on the ability to engage with peers and specialists to expand their knowledge and ability to care for complex conditions facing older adults.

Building resilience is multifactorial including collaboration, problem solving, and positive thinking and the ECHO model improved the capacity of PCPs to build these skills as they care for older adults in their communities. The ECHO model helped participants’ resiliency skills through convenience of access to an

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interprofessional geriatrics team and personalized case discussions. Tele-mentorship allows the sharing of ideas and resources across a wide geographical area, which can decrease burnout related to commute time and expenses while still providing collaborative space for learners. Tele-mentoring also allows for PCPs and primary care team members from varied practice settings to participate and share their unique experiences working with older adults, which adds to diversity in methods of problem solving, solutions and resource sharing. Sharing different attitudes when approaching difficult situations caring for older adults built comradery among participants and empowered them to implement positive thinking into their practices, normalize their experiences, and feel the support of peers with the same struggle. The interprofessional Geri ECHO team included specialists representing the majority of types of primary care providers who participated in Geri ECHO which facilitated ongoing collaboration among providers of similar backgrounds with varied access to resources. The Geri ECHO also included participant-driven case discussions, which helped connect the didactic sessions with personalized experiences among the group to facilitate real-world problem solving, resource and knowledge sharing.

Several responses to the open-ended questions and post-course interviews suggested that systems and administrative tasks were significant factors contributing to PCP burnout. While it is not within the scope of the Geri ECHO to address or change structural issues within primary care practice systems, it is important to acknowledge the ways in which this affected feelings of burnout within this study as well as future research. Many of these factors are beyond a single provider's control and are difficult to measure directly without confounding variables, but are still important in addressing the ways in which PCPs feel supported in caring for older adults.

The ability to provide quality tele-mentorship to primary care providers by a multi-disciplinary geriatric-specialty team increases access and resources to frontier and rural areas of Oregon. In this study, burnout factors such as lack of time, knowledge and resources in caring for older adults were addressed by the Geri ECHO and led to expressed characteristics of resilience. This tele-mentoring platform has the potential to conveniently and cost-effectively reach a wide population area and provide these resources and skills to other healthcare professionals.

There were several limitations in our study including PCP participant loss to follow-up and not capturing confounding factors affecting PCP burnout (e.g. personal life, work culture) that the ECHO did not address. This study also captures data from a fixed moment in time which limits the understanding of how burnout and resilience are change over a longer period of time, particularly in relationship to those external confounding factors in conjunction with patient care. In addition, the semi-structured interviews could have been expanded to further understand how the Geri-ECHO could have more specifically addressed PCP burnout and resilience in an idealized setting as participants might have been able in such a case to speculate as to how future changes could be made in the ECHO format to help foster resilience. Additionally, the majority of participants identified as White females, which does not represent the racial or gender demographics of PCPs in Oregon and SW Washington. This may limit perspectives on burnout and resilience and the diverse voices of primary care are important to consider in future research.

As the older adult population in the United States increases there will be many opportunities to provide tele-mentorship to primary care providers and other specialists caring for older adults. Burnout and the ability to counteract burnout with resilience is also applicable to any medical specialty. This study can be expanded to include other Oregon ECHO Network programs or modified to tailor an ECHO specifically towards addressing provider burnout and resilience.

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## Conclusions (2-3 summary sentences)

Participation in the Geri-ECHO tele-mentoring course subjectively improved resilience among primary care providers working with older adults across Oregon and SW Washington by fostering empowerment, collaboration and resource-sharing. There was no positive change in levels of burnout among primary care providers after participation in Geri-ECHO.

## References (JAMA style format)

1. Flaherty E, Bartels SJ. Addressing the Community-Based Geriatric Healthcare Workforce Shortage by Leveraging the Potential of Interprofessional Teams. *J Am Geriatr Soc.* 2019;67(S2):S400-S408. doi:10.1111/jgs.15924
2. Office UCBPI. 2010 Census Shows 65 and Older Population Growing Faster Than Total U.S. Population - 2010 Census - Newsroom - U.S. Census Bureau. Accessed October 21, 2020. [https://www.census.gov/newsroom/releases/archives/2010\\_census/cb11-cn192.html](https://www.census.gov/newsroom/releases/archives/2010_census/cb11-cn192.html)
3. Tinetti M. Mainstream or Extinction: Can Defining Who We Are Save Geriatrics? *J Am Geriatr Soc.* 2016;64(7):1400-1404. doi:10.1111/jgs.14181
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5. Smith BW, Dalen J, Wiggins K, Tooley E, Christopher P, Bernard J. The Brief Resilience Scale: Assessing the Ability to Bounce Back. *Int J Behav Med.* 2008;15(3):194-200.