Aiming to Improve Care of Older Adults: an Innovative Faculty Development Workshop

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INTRODUCTION/ AIMS: Internists care for older adults and teach geriatrics to trainees, but they often feel ill-prepared for these tasks. The aims of our 1-day Continuing Medical Education workshop were to improve the knowledge and self-perceived competence of general internists in their care of older adults and to increase their geriatrics teaching for learners.

SETTING: Two internal medicine training programs encompassing University, Veterans Affairs, and a community-based hospital in Portland, OR, USA.

PROGRAM DESCRIPTION: Course faculty identified gaps in assessment of cognition, function, and decisional capacity; managing care transitions; and treatment of behavioral symptoms. To address these gaps, our workshop provided geriatric content discussions followed by small group role plays to apply newly learned content. Forty teaching faculty participated.

PROGRAM EVALUATION: Participants completed 13-item multiple-choice pre- and post-workshop geriatric knowledge tests, pre- and post-workshop surveys of self-perceived competence to care for older adults, and completed an open-ended 'commitment to change' prompt after the intervention. Knowledge scores improved following the intervention (61% to 72%, $p < .0001$), as did self-perceived competence (11 of 14 items significant). Seventy-one percent of participants reported success in meeting their commitment to change goals.

DISCUSSION: A 1-day intervention improved teaching faculty knowledge and self-perceived competence to care for older patients and led to self-perceived changes in teaching behaviors.

KEY WORDS: Continuing Medical Education workshop; geriatrics; standardized learners; Graduate Medical Education.

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INTRODUCTION/ AIMS

Older patients benefit from comprehensive, team-oriented care that optimizes function and meets individual goals¹. Geriatricians learn to provide this care, but many older patients are cared for by primary care physicians^{2,3}. Few internists complete residency with the knowledge, skills, and confidence needed to provide quality care to older adults^{4,5}. Furthermore, internal medicine teachers admit knowledge gaps that make them ill-equipped to provide this teaching¹.

Faculty development could enhance the skills of internal medicine teaching faculty to care for older adults. However, data suggest that didactic faculty development may not change clinical practice or impact daily teaching encounters⁶. In our prior work, we successfully combined didactic and experiential learning methods to enhance the value of Continuing Medical Education (CME) for teaching skills⁷. From a needs assessment of internists' perceptions of their geriatric knowledge gaps, we identified deficits in management of incontinence, falls, delirium, dementia, and polypharmacy; making efficient care transitions; and improving patients' functional status within their social context⁸. This study blends the experiential methods we developed to enhance teaching skills with the geriatrics content previously identified into a 1-day CME workshop. Our aims were to (1) test the effectiveness of this teaching method, (2) improve the knowledge and self-perceived competence to care for older adults, and (3) increase geriatrics teaching.

PROGRAM DESCRIPTION

Subjects and Setting

This study included internal medicine teaching faculty from Oregon Health and Science University, the Portland Veterans Affairs Medical Center, and Legacy Health System, a community-based program. Two groups of faculty participated: internal medicine clinical teachers ("participants") and 4 general internists from each institution selected based on their high exposure to learners and known skills as clinical teachers in the inpatient or ambulatory setting ("star educators"). We received institutional review board approval from all institutions. All participants provided written consent.

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Intervention

We designed a 1-day CME intervention including didactics, small group–simulated teaching encounters utilizing scripted cases and standardized learners (SLs), and pocket teaching guides ('geriatric cards'). We worked with geriatricians and geropsychiatrists to develop 30–60-min presentations on the identified topics. All presentations had a priori educational objectives. Each case-based presentation was followed by questions and discussion, which accounted for 30% of the workshop. Participants also learned the One Minute Preceptor (OMP) teaching method, a 5-skill model that helps teachers recognize and teach to learners' knowledge and skills gaps⁹. Participants then practiced applying new information in simulated teaching encounters. They were encouraged to use the OMP technique in the practice sessions.

We piloted the workshop with the star educators. Based on informal feedback from this pilot, content and timing was revised slightly. We then offered 2 intervention workshops 6 months apart.

We also developed pocket cards with evidence-based 'quick references' for many geriatrics topics. The cards mirrored workshop content for use during teaching practice sessions and in subsequent clinical and teaching encounters (online Appendix 1).

Case Development

We chose clinical scenarios for geriatric topics that preceptors encounter frequently. We wrote role plays using these scenarios, scripting each microskill of the OMP into the scenario. The case scripts were pilot-tested in the star educator workshop and refined from their feedback. They were then used during the teaching practice sessions for the intervention workshops. The case scripts progressed from straightforward to complex (online Appendix 2).

Training of Standardized Learners

For the pilot workshop with the star educators, we trained general medicine and geriatrics fellows as SLs to role play residents presenting the case scripts we developed. The 2-h training sessions taught the SLs to role play the learner and to coach the preceptor-participant to use the OMP microskills during the role plays. Standardized learners rotated roles of the OMP workshop and were encouraged to 'time out' the role play when the preceptor-actor seemed 'stuck' and unable to respond to the SL. By role playing both the 'learner' and 'preceptor' roles during this training session, the SLs learned to demonstrate varying levels of knowledge and attitudes in caring for geriatric patients and to coach star educators in both their geriatric teaching and OMP skills⁷. After the pilot workshop, the star educators were trained as SLs for the 2 participant workshops using the same methods with observation and feedback from 2 authors most versed in OMP (EE and JLB; see online Appendix 3 for study design).

Evaluation Tools

Knowledge Questionnaire. Knowledge of geriatric topics was assessed using a pre- and post-intervention multiple-choice questionnaire (MCQ). Ten items were developed by the American Geriatrics Society¹⁰. Three new questions were

developed to test knowledge of psychopharmacology, a major focus of our workshop for which we could find no previously developed questions. After piloting this tool with the star educators, participants completed the MCQ up to 2 weeks before and immediately after the intervention. Participants in the second workshop completed the MCQ at the start of the study and again before their workshop to account for any knowledge contamination by colleagues who had completed the first workshop. Star educators completed the MCQ again 9 months after the intervention.

Competence Survey. We found no validated survey tools of self-perceived competence to care for older adults, so we developed a 14-item survey. We asked participants and star educators to rate their competence on a 5-point Likert scale (1 = "strongly agree"; 5 = "strongly disagree") for each content area in our intervention. Participants and star educators completed the self-assessments before and 6 months after the intervention.

'Commitment to change' statements. Because studies have demonstrated that statements of commitments to change practice can predict actual change¹¹, participants and star educators listed 3 action items as commitments to change in their practice and teaching after each workshop.

Semi-structured Interviews. To gather richer data on our intervention results, we developed a telephone or in-person semi-structured interview that participants and star educators completed approximately 3 months after the workshop. Participants and star educators were prompted to report perceived changes in practice and teaching and what intervention resources they found effective and were then reminded of their commitment to change action items and asked if they had acted on them. Study personnel conducted the interviews for star educators, and star educators conducted the interviews for participants. The qualitative information was then organized into broad categories.

Statistical Analysis

First, we compared both pre-intervention MCQ scores for the second participant group and found no significant change in baseline from the start of the intervention to 6 months later. Then we compared the initial pre-intervention MCQ scores for both groups of participants and found no differences, so results were combined for further analysis. We also compared star educator responses to participant responses for MCQ and competence surveys and found no differences, so these data are reported together. Nine-month post-intervention MCQ data was only collected from the star educators.

We compared pre- and post-intervention MCQs for improvement in knowledge using paired *t* tests. We compared competence questions pre- and post-intervention using paired *t* tests and also did sub-analyses to determine whether demographic variables influenced the results of the intervention. All analyses are reported at the 0.05 significance level using 2-tailed tests. Data from the semi-structured interviews is reported descriptively to provide examples of perceived changes in practice and teaching behaviors and for reported attainment of commitment to change goals.

PROGRAM EVALUATION

Demographics and Course Evaluations

Forty of 69 (58%) eligible general internists participated in the intervention (12 star educators and 28 participants). Most participants practice in the ambulatory setting, and all reported caring for many older adults. Nineteen reported never having a geriatrics rotation during training, and 25 reported never having continuing education in geriatrics (Table 1). Participants rated the overall course at 5.2 of 6 (1 = "poor," 6 = "outstanding") and the small group practice sessions at 5.3 of 6.

Evaluation Tools

Knowledge Questionnaire. Combined participant and star educator scores increased from 60% correct (standard deviation [SD] 10.8%) to 72% (SD 11%) correct on the multiple-choice knowledge questions following the intervention ($p < .0001$). Star educators scores 9 months after the intervention showed a persistent increase in their geriatric knowledge (70% correct, $p = 0.05$ compared to pre-intervention scores).

Competence Survey. Following the workshop, participants and star educators reported improvement in self-perceived competence to provide care to older adults, to assess common geriatric syndromes, and to manage older patients' care transitions (Table 2). Those who had a geriatrics rotation during residency noted less impact from the course; however, exposure to a prior geriatrics rotation did not impact perceptions of improvements in competence. The only other

Table 1. Characteristics of Participating Faculty

	University (n=18)	VA (n=10)	Community (n=12)	Total (n=40)
Female	9 (50%)	8 (80%)	6 (50%)	23 (57.5%)
Primary role				
Ambulatory	10 (55.5%)	2 (20%)	8 (66.6%)	20 (50%)
Hospitalist	3 (16.5%)	3 (30%)	3 (25%)	9 (22.5%)
Combined	5 (27.7%)	5 (50%)	1 (8.3%)	11 (27.5%)
Estimated percent of patients in participant's practice over age 65				
25–50	10 (55.5%)	1 (10%)	6 (50%)	17 (42.5%)
51–75	5 (27.7%)	8 (80%)	4 (25%)	17 (42.5%)
Participants who provide care for patients in long-term care settings	6 (33.3%)	4 (40%)	6 (50%)	16 (40%)
Participants who reported having a geriatrics rotation during training	8 (44.4%)	6 (60%)	7 (58.3%)	21 (52.5%)
Participants who reported having attended a Geriatrics CME course	8 (44.4%)	3 (30%)	4 (33.3%)	15 (37.5%)

Table 2. Faculty Self-perceived Competence to Care for Older Adults

Geriatrics Competence Domain	Mean Pre*	Mean Post*	Change Score†	P value
In providing medical care				
1. I feel competent to recognize, evaluate, and treat dementia in my older patients	2.43	1.90	0.53	.0003
2. I feel competent to recognize and minimize medication interactions for my older patients	2.23	1.89	0.34	.014
3. I feel competent to recognize, evaluate, and treat acute delirium in my older patients	2.13	1.68	0.45	.001
4. I feel competent to recognize, evaluate, and treat behavioral disturbances in my older patients with dementia	2.79	2.10	0.69	<.0001
5. I feel competent to recognize, evaluate, and treat depression in my older patients	2.00	1.73	0.27	.03
6. I feel competent to recognize, evaluate, and treat gait disturbances in my older patients	3.23	2.44	0.79	<.0001
7. I feel competent to recognize, evaluate, and treat falls in my older patients	2.80	2.10	0.7	<.0001
8. I feel competent to diagnose, evaluate, and treat various causes of urinary incontinence in my older patients	3.00	2.21	0.79	<.0001
In assessing older patients				
1. I feel competent to evaluate the decision-making capacity of my older patients	2.55	2.23	0.32	.02
2. I feel competent to evaluate the cognitive function of my older patients	2.55	1.90	0.65	<.0001
3. I feel competent to evaluate the functional capacity of my older patients	2.83	1.98	0.85	<.0001
In managing patients' care transitions				
1. I feel competent to recognize when my older patient needs to transition to a more supportive living situation (such as assisted living or a skilled nursing facility)	2.43	1.98	0.45	.002
2. I feel competent to choose/recommend and arrange my older patient's transition to a more supportive living facility (such as assisted living or a skilled nursing facility)	2.93	2.20	0.73	.0002
3. I feel competent to care for patients who reside in community care facilities	2.68	2.28	0.4	.014

*Mean pre- and post-scores derived from the 1–5 Likert scale evaluation instrument; 1 strongly agree, 5 strongly disagree

†Change score = post-intervention – pre-intervention score

demographic variable that impacted changes was that men reported less impact from the intervention than women.

Semi-Structured Interview Results. After the intervention, participants and star educators completed the semi-structured interview. They reported increased awareness of and comfort with geriatric issues and used a more structured approach to geriatric problems. Most comments related to dementia, such as including delirium and depression in the differential, distinguishing

dementia from mild cognitive impairment, performing tests of executive function (clock drawing/animals for verbal fluency), and assessing function such as paying bills/balancing checkbooks. Most reported improved comfort treating dementia with anticholinesterase inhibitors and treating behavioral problems (prescribing atypical antipsychotic medications, understanding the treatment differences for Lewy body dementia). Participants and star educators also reported increased performance of functional assessment (using the 'get up and go' test, assessing fall risk, ordering home safety evaluations), and improved diagnosis and treatment of urinary incontinence.

The majority of commitments to change focused on more frequent and detailed assessment and management of geriatric syndromes and recognition of geriatric issues in teaching. Seventy-one percent of participants and star educators reported following through on their commitment to change statements.

DISCUSSION

After a 1-day CME workshop, 40 internal medicine clinical teachers had improved geriatric knowledge and self-reported competence to care for older patients. Three months after the intervention, 71% reported implementing their commitment to change items. In semi-structured interviews, they reported improvements in their care and teaching in all the 'gap' areas identified in our needs assessment. These changes imply that physicians without advanced training in geriatrics can learn content for common geriatric conditions and assess and focus on functional goals.

In our previous faculty development work using the OMP teaching model, the introduction of highly scripted cases and SLs effectively kept participants engaged in practicing their new skills⁷. In this workshop, we enriched that teaching method by introducing geriatrics content and having participants practice teaching geriatrics content using the rubric of the OMP. The combination of didactic and experiential learning provided participants the opportunity to apply new knowledge to realistic clinical cases and teaching scenarios and may have helped them 'habituate' inclusion of geriatric topics in their care and teaching. Active learning methods and reflection leading to a commitment to change likely contributed to our reported improvement.

Our study has limitations. First, our sample is limited to teaching internists in 1 city. However, we included physicians from 3 diverse healthcare systems to test the feasibility of the project across different teaching settings. Second, because we did not collect data on non-participants, we do not know that our sample was unbiased. However, we had a good mix of ambulatory and inpatient physicians; many of them with little prior geriatrics experience. Third, we did not have a control group who received a standard, lecture-based CME course, so we cannot draw conclusions about the effectiveness of our experiential teaching methods. Fourth, we did not assess course faculty or study personnel costs to develop the workshop, so we cannot assess whether this teaching method is cost-effective for the learning that ensued. Fifth, we did not objectively measure true clinical or teaching behavior change after the workshop but simply asked for self-reported improvements in skills. Sixth, there are few validated

evaluation tools upon which we could draw for our study. We attempted to utilize standard evaluative techniques (questioning participants about self-perceived competence, for example) and previously utilized knowledge questions (taken from the Geriatric Review Syllabus), but we acknowledge that these tools may not be ideal. Future studies should be funded to validate evaluation tools and measure clinical and learner outcomes of faculty development workshops.

The shifting population demographics and shortage of geriatricians requires that we improve internists' confidence and skills in delivering quality health care to older adults, as well as teaching others to do the same. Our experiential approach led to improvements in knowledge about geriatric topics, self-reported competence to care for older adults, and self-reported changes in clinical care and teaching. We believe implementing workshops similar to ours may be a feasible, effective way to enhance the skills of primary care clinicians in the care of older adults.

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Conflict of Interest: None disclosed.

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