Perceived Needs for Geriatric Education by Medical Students, Internal Medicine Residents and Faculty

Margaret A. Drickamer,[1] Becca Levy,[2] Kevin S. Irwin,[2] Robert M. Rohrbaugh[3]

[1]Department of Internal Medicine, Yale School of Medicine, New Haven, CT, USA; [2]Department of Epidemiology and Public Health, Yale School of Medicine, New Haven, CT, USA; [3]Department of Psychiatry, Yale School of Medicine, New Haven, CT, USA.

CONTEXT: Traditional methods of setting curricular guidelines using experts or consensus panels may miss important areas of knowledge, skills, and attitudes that need to be addressed in the training of medical students and residents.

OBJECTIVE: To seek input from medical students and internal medicine residents ("trainees") on their perception of their needs for training in Geriatrics.

DESIGN: Two assessment methods were used (1) focus groups with students and residents were conducted by professional facilitators and the transcripts analyzed for areas of agreement and divergence and (2) geriatric medicine experts and ward attendings were surveyed to examine training gaps raised by trainees during Geriatric Guest Attending Rounds.

RESULTS: Trainees perceived training gaps in caring for elderly patients in the areas of (1) recognizing and addressing the complex, multifactorial nature of illness; (2) setting priorities and goals for work-up and intervention; (3) communication with families and with patients with cognitive disorders; (4) assessment of a patient for discharge from the hospital and the services at different sites in which patients may receive care. They recounted feeling overwhelmed by complex patients and social situations while acknowledging the special aspects of connecting with older patients. The gaps identified by trainees differ from and complement the curriculum guidelines set by expert recommendations.

CONCLUSION: Trainees identified gaps in skills and knowledge leading to trainee frustration and potentially adverse outcomes in caring for elderly patients. Development of curriculum guidelines should include assessment of trainees' perceived learning needs.

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Curricular standards are often set by panels of experts with input from professional organizations and leaders in the field. They list and categorize the knowledge, skills, and attitudes necessary to attain competence in that particular field. The Education Committee of the American Geriatrics Society published a set of core competencies for the care of the older patient[1] (Table 1). Other specific curricula have been developed for teaching in home care,[2] nursing home care,[3,4] interdisciplinary team care,[5,6] and geropsychiatry.[7]

It is less clear how the needs trainees perceive influence the development of core competencies or curricula. As trainees learn best in the context of what they feel they need to know in order to provide competent care,[8] it may be important to understand trainees' perceived deficits in their knowledge and skills, and what barriers trainees identify when providing care to older patients.

The purpose of this study is to improve our understanding of trainees' range of experiences in caring for geriatric patients, and to compare these findings with the geriatric core competencies outlined by professional organizations. Focus groups were used in 1 previous study of trainees, which examined attitudes and perceived educational needs of medical residents in caring for older patients.[8] These residents identified exposure to continuity of primary care and communication as missing elements in their geriatric training. A survey of community physicians in primary care showed that practicing clinicians were more interested in learning about management than diagnosis, especially of dementia, multiple problems, and depression.[9] A recently published study which utilized the qualitative analysis of focus groups, found that academic General Internists perceived a need for more knowledge and skill in the transitions of care for patients, the effective use of multidisciplinary teams, the navigation of the health care system, and the geriatricians' approach to patient care.[10]

METHODS

In this study, we utilized 2 techniques for assessing trainees' perceived needs for education in the care of the elderly (1) trainee focus groups and (2) surveys of participating physicians in Geriatric Guest Attending Rounds. Focus groups were designed to elicit and capture the more reflective thoughts of the trainees in considering their experiences and discussing them with peers. Geriatric Guest Attending Rounds tapped into trainees' active need-to-know as they were caring for patients "real time" in a training setting. Our study was done as part of the IMAGE (Integrated Model of Aging and Geriatric Education) project before instituting curricular change in these areas. Some of the residents had had an exposure to geriatrics during their internship but there was little other formal geriatric curriculum. Our study was exempted from Institutional Review Board review.

Focus Groups

Focus groups are useful for identifying an otherwise unavailable range of perspectives and beliefs that are clarified through peer group dynamics. Voluntary and confidential participation was solicited through letters from the Assistant Dean of Education (for medical students) and the Residency Director (for internal medicine residents). The facilitators for the groups

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Address correspondence and requests for reprints to Dr. Drickamer: Section of Geriatrics, Yale University School of Medicine, 20 York Street, TMP 15, New Haven, CT 06504 (e-mail: margaret.drickamer@yale.edu).

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were not associated with the trainees' medical training or evaluation. Each group was provided with lunch to promote an informal setting, and each participant received a gift certificate to a local book store. Facilitators used a standard question guide designed by the research team with prompts for clarification and elucidation regarding issues related to the care of older patients. The focus groups were audio taped and transcribed. Once saturation of new ideas had occurred, no new focus groups were held. Separate focus groups were held with third year medical students and fourth year medical students during student outpatient rotations, and second and third year medical residents on inpatient rotations.

An interdisciplinary team composed of a geriatrician, a geropsychiatrist, a sociologist, and a social psychologist performed the qualitative analysis. Each team member reviewed the same sample of 5 transcripts representing the 3 different subject groups, using an open coding technique to identify emerging themes. A coding scheme (see Appendix A online) was developed over 3 sessions based on agreement of themes and subthemes, together with characterization and descriptive codes. Then the group intensively coded 2 transcripts to assure agreement on the codes and their definitions. Each member of the team independently coded the remaining 7 transcripts. Coding and content analyses was facilitated electronically using a software program designed for coding-and-retrieval of qualitative data (NUD∗IST®).[11] Content analysis was also analyzed by level of trainee. All quotations related to perceived training needs and areas of discomfort with their ability to care for patients were then extracted and distilled for analysis.

Geriatric Guest Attending Rounds

Geriatric medicine faculty participated in the required ward attending rounds on a monthly basis with each of the 4 general medicine inpatient teams at an academic tertiary care hospital. Each team was composed of 2 residents (second or third year) 1 to 2 interns, 2 to 3 medical students, and the ward attending physician. An older patient was presented for whom the team had questions on approach or management. In response to an e-mail immediately following the rounds, all geriatric-related concerns raised by any member of the ward team were recorded by the geriatrician. Ward attending physicians were surveyed at the end of the academic year, soliciting their impression of what had been important in the learning experience of the trainees during Geriatric Guest Attending Rounds. Responses were compiled by frequency; those topics that were mentioned by more than 4 attendings were considered educationally significant.

RESULTS

Focus Groups (See Table 1)

Nine focus groups were held with medical trainees: 2 groups with third year students, 2 groups with fourth year students, and 5 groups with internal medicine residents. The focus groups lasted 60 to 90 minutes and each had 4 to 8 (average 7) trainees.

Knowledge. Difficulty in dealing with the complexities of issues for older patients was a very common theme in all focus

Table 1. Comparison of Published AGS Core Competencies with Learners' Perceptions of Their Needs for Geriatric Training

	AGS Core Competencies	Focus Groups	Geriatric Guest Attending Rounds
Knowledge	*Basic science*	*Complexity of care*	*Mental status*
	Anatomic, histologic, physiologic,	Polypharmacy	Delirium vs. dementia
	pathologic change	Multisystem illness	Behavioral problems, depression, psychosis
	Normal aging	Disease presentation	*Polypharmacy*
	Epidemiology	Balancing QOL and psychosocial	Effects on mental status
	Clinical	factors with treatment of disease	Treatment of agitation and depression
	Common geriatric syndromes,	Prioritizing work-up and treatment	*Function*
	conditions, diseases, and disorders	*Interdisciplinary care*	Function as a predictor
	Psychosocial problems	How to use a multidisciplinary approach	Falls, failure-to-thrive
	Disease prevention	Function of and access to other disciplines	*Placement*
	Ethical issues		Levels of care
	Health care financing		Medical care available in nursing homes
	Cultural aspects of aging		*Other*
			UTIs, incontinence, compression fractures,
			dehydration
Skills	*Geriatric assessment*	*Communication skills with demented patients*	*Ethics*
	Physical, cognitive, emotional,	Assessing ability to communicate	Decisional capacity (temporary and permanent)
	and social functioning	Structuring the interview	Placement against patient's or family's will
	Physical diagnosis skills	*Communication with families*	*Assessment of*
	Gait and balance	About placement	Hearing, vision, swallowing, mobility, safety
	Abnormal signs of aging	About end-of-life issues	Pressure sores, incontinence of urine or stool
	Preoperative assessment	About goal-setting	Executive function
		Communication with outside institutions	Applying assessment for understanding
		How to assess a patient for discharge	recovery, need for services, safety, ability to
		Understanding sites of care	return home
Attitudes	Recognize stereotypes, ageism,	Move from disease-oriented, curative	Understanding the multifactorial etiology of
	the diversity among the elderly	model to multifactorial goal-oriented	illness
	Work with colleagues in other	illness management	Understanding the need for goal setting
	disciplines	Connecting with patients	
	Compassion toward frailty		
	Need to optimize function		

QOL, quality of life.

groups, no matter what the level of trainee. Many trainees found it difficult to prioritize the different diseases, problems, and interventions that one sees in sick, complex, elderly patients. The increased knowledge and experience of the residents often made them more aware of this complexity, the multiple issues that needed to be addressed, and of the inadequacy of their interventions. This theme was common to both the inpatient setting where residents and students felt that it was hard to get a sense of the whole picture and outpatient settings where residents discussed the difficulty of time pressures in seeing complex patients. Residents also expressed frustration about seeing primarily very sick complicated elderly patients and they did not see or learn how to care for healthier elderly patients.

Frequently mentioned sources of the complexity included multisystem illness, differences in disease presentation in the elderly, polypharmacy, and balancing quality of life issues and psychosocial factors with the treatment of diseases.

> *Multisystem illness*:
> As an intern it was a bit intimidating, now it's rewarding. If you see a patient with renal disease, heart failure, diabetes, COPD, you are ready to scream. Once you have a handle on those and you are comfortable with them, then it is fascinating and rewarding.

> *Presentation of illness*:
> I feel like in older patients they present more vaguely or nonspecifically . . . what might not be very critical in a younger person might be very critical in an older patient . . . something like fatigue or dizziness or sort of vague symptoms . . . I think for me I find it hard to understand the same illnesses present in older people, how to be more vigilant around them.

> *Polypharmacy*:
> They come to the hospital with maybe mental status changes and then you have a whole list of medicines that someone else prescribed for them.

> *Quality of Life*:
> I think that whole thing of having more than one major disease process at the same time . . . you are balancing a lot of things like their quality of life versus making an actual improvement in the outcome of one of those diseases.
> A lot of the elderly patients often times we can't really improve certain parameters and often times we are just left with sort of confusion about what to do.

Skills. All levels of trainees perceived a deficit in communication skills. The areas of inadequacy in communicating most frequently mentioned were associated with cognitively impaired patients and with patients' families.

Issues related to communication with cognitively impaired patients include (1) the difficulty of finding and communicating with an informant (either a family member or a nursing home), (2) trying to be patient-focused when interviewing but finding that open-ended questions may not elicit needed information, (3) balancing the need to elicit information in a timely manner while still treating the patient like an adult, (4) trying to help the individual to realize that they need assistance, and (5) assessing the patient's ability to make the decisions.

Participants universally described difficulties associated with structuring the interview in such a way as to elicit meaningful information from demented patients:

> [Whenever] I had a patient that was pretty demented and I had to take a history, I would either come out feeling like more confused than I was in the first place. I thought – what did we talk about? I remember talking to my resident about this, like how do I redirect this patient, how do I get something meaningful out of this history taking?
> . . . with the elderly who may have some form of dementia or are poor historians in general we need to get more proactive in getting histories from other sources that we might not necessarily do with a younger patient.

A strategy for overcoming these difficulties was to enlist members of the patient's family, while remaining sensitive to the active role of the demented patient in the discussion:

> I have found that what I do time and time again is talk to the patient's family, talk to the daughter, or the son or someone like that without really formally establishing that the patient might be able to make decisions on their own. I think a lot of times it's great to include the family in the healthcare decisions but sometimes we do that to the exclusion of the patient and that can be definitely wrong.

Many trainees felt ill prepared in the special skills needed to talk with families. These skills include the ability to communicate bad news in a way that the family could accept it, explaining the uncertainty in what one does and does not know and explaining the futility of certain situations and interventions:

> Often there is a period of negotiations between the family and the team . . . I think the families need to be educated more. We know what the realistic thing is. They are going to die and the best thing would be to let them go. Maybe 10–20% of the time the family comes in and they know that mom would never want to live like this and this is torture treating her like this. That is such a relief to me.

Participants also discussed the difficulty in finding family members or informants in many cases, and the need to find alternative sources of information:

> It is helpful to track down people who do know more about what is going on. A lot of times they are coming back and forth from the nursing home, . . . just communicating with whoever might have a better picture of what is going on.

Trainees expressed a need to know more about the discharge process and the data needed to determine what level of care the patient required. Identified training gaps include how to work with the interdisciplinary team and to better understand the sites of care, specifically home care, nursing homes, assisted living, and hospice. Many trainees felt they needed more skill in helping patients and families adjust to the need for change, as well as understanding the balance between quality of life and ability to perform the activities of daily living that is part of the placement decision:

> There are 2 huge issues . . . one is home safety evaluations, making that transition from someone who comes from home and is going to need to go to either assisted living or a nursing home. I don't have a good framework for that. I don't think in our education here we get a framework for that.

Trainees were also frustrated by the lack of communication between sites of care:

> . . . I don't necessarily want to deal with all [the discharge issue, but . . .] I was very grateful for the opportunity in Medical School to

> go into a nursing care facility or hospice care or go into patients' homes . . . and see what happens at many different sites and therefore feel comfortable with the decision making process.

Attitudes. Frustrations that trainees expressed about working with older patients included the feeling that there was neither enough time to spend with elderly patients nor sufficient resources to help carry out a plan of care. They often felt confused by what they were actually doing for a patient and found the "bad" outcomes (e.g., deaths) were distressing. A common theme in all groups of trainees was that they often felt overwhelmed by the care of the complex and frail elderly:

> It seems like, with a lot of elderly patients, the older somebody gets, the higher the complexity of their disease yet the lower is their ability to manage the disease on their own . . . When we send them out we practically know that the recommendations, no matter how precise and appropriate they are for the patients, are less likely to be really appropriate to follow because the patient themselves [can't] manage them.

Despite the challenges presented by the complexities of some older patients' physical and mental status, many trainees felt it was easier to establish a rapport with older patients. Doing simple things, such as cleaning their ears, could make them happy. Trainees frequently mentioned that older patients were more able to express their feelings and their appreciation:

> I tried to talk with her on a daily basis but one morning she was in there with all her family and she looked up to me and said, "I really like you." And this woman is dying and she is with all her family and I think sometimes that the patients that are older, they tend to express their feelings a lot easier.

A theme that arose spontaneously in all focus groups was that older patients have a tendency to "tell stories." Many people found this to be a way to forge a positive emotional link with patients:

> I felt like I was most likely able to form long-term relationships with older patients than younger patients. You tend to hear so much more about their family stories, so much more about their personal lives that you connect on a different level than with younger patients. There you tend to focus more on the problem at hand. It helps you connect with their family, too.
> Elderly patients invite you into their lives more. I get to hear more stories.

But these stories were also felt to interfere with time management:

> While I was busy getting paged the patient wanted to tell me a story about Poland since I am of that nationality. And I could see that it was important to him even thought I was thinking 'My goodness I am going to get killed if I don't get downstairs.'

Geriatric Guest Attending Rounds. Geriatric guest attending rounds were held 38 of 52 weeks of the year and included 34 attending physicians, 55 interns, 74 Junior Residents, 70 Senior Residents, 36 fourth year students, and 50 third year students. E-mail responses from geriatricians were received for 28 of the 38 sessions (74%; see Table 1). Twenty-six of 34 attendings (76%) were available to be surveyed and 17 of 26 completed the survey (65%). Table 2 shows the most frequent responses from the ward attending survey.

Table 2. Responses from the Medicine Ward Attendings

What did you find was most useful in these sessions?
Liked case-based approach
Approach of an expert to elderly patient
Assessment for ability to return home or other places
Goals/degrees of aggressiveness in treatment
What do you feel has the most influence on housestaff?
Role models
Whole patient/goal oriented approach
Other needed topics
Elder abuse
Assessment of competency in elderly
Nutrition

DISCUSSION

By soliciting the self-perceived needs of medical trainees, we have defined areas where the learners feel the least confident and are the most invested in learning. The strength of this study was that we were able to assess candid opinions in an open-ended way from trainees by using both focus groups and Guest Attending Rounds as a method of gathering information. These methods produced clear trends and both confirm and expand on those found in other learner assessment studies. Similar to the study of academic General Internists[10] the focus of these trainees' needs was in the process of care: complex decision making, prioritization, communication, and systems problems. This differs significantly from those in the AGS core competencies. Trainees continued to express these needs even as they advanced through their training indicating the need for specific geriatric training and not just increased general medical knowledge and experience. Factual knowledge may have already been addressed in their curriculum or may have seemed less important in view of the immediacy of the process problems. Hazzard et al.[12] describe the process of good geriatric care as ". . . disaggregating complex problems and synthesiz[ing] it all into a comprehensive plan for each patient, weighing and accepting the inevitable trade-offs in diagnosis and treatment." This present study demonstrates that this is what trainees are looking to learn.

Knowledge. Knowledge requirements of the core competencies for the care of elderly patients focus on illness, basic science subjects, the assessment, treatment and prevention of specific diseases, and syndromes common in the elderly, as well as the ethical and cultural competencies. However, trainees were looking for a more integrative structure in which to use their factual knowledge. They wanted to know how to use information from a geriatric assessment to determine need for placement in an extended care facility or how to integrate the various diseases, syndromes, and illnesses into a plan of care that is possible for the individual to carry out. It was the complexity of the care combined with the inability to identify goals and prioritize knowledge about the diagnostic work up and the therapeutic interventions that frustrated the trainees.

Skills. Core competencies in the process of geriatric assessment are necessary for good geriatric care, but the training must be extended to the appropriate application of these assessment skills.

Learning the implications of functional (including cognitive) assessment for safety, quality of life, and prognostication is the next important step. The trainees were looking for the experience with and skill of the process of geriatric care. Experiences with interdisciplinary teams, coordinating care, and first-hand knowledge of a variety of care settings is key to helping meet this need.

Attitudes. To address the medical trainees' feelings of confusion over purpose of treatment and outcomes, it is important for the learner to move from a disease-management model to a geriatric holistic model of care. Understanding the importance of defining the goals of treatment is particularly helpful in areas of decision making, handling the complexity of illness, communication with patients and families, and feeling good about what could be considered bad outcomes in a traditional model. Care based on the patient's preferences recognizes their autonomy and allows them dignity even if they are dependent.

Knowledge, skills, and attitudes are overlapping and interdependent. Negative attitudes toward a segment of the population often arise from fear and from lack of understanding of and comfort around those individuals. Many individuals feel uncomfortable about their own aging process.[13] Lack of the knowledge and skills to care for older individuals can lead to fear and denigration of older patients. More knowledge about older people and increased skills in caring for them will impact trainees' attitudes toward older patients.[14,15] We feel that our approach to needs assessment identifies areas where increased knowledge and skills will help to change trainees' attitudes toward caring for the elderly.

Our study has several limitations. The analysis of transcripts does not allow us to give quantitative data on frequency of responses. We used a convenience sample of medical students and residents and therefore our results may not be representative. These results reflect the experience of a group of trainees at one institution and their experience may differ from those at other medical schools. Likewise, only Internal Medicine residents were asked as participants in the resident focus groups and so these results may not be extrapolated to residents in other specialties. Although we were able to obtain responses from the majority of geriatricians and ward attendings, because the surveys were done after the event, there may have been recall bias in their responses.

CONCLUSION

The traditional medical models of care and reimbursement structure are factors leading to a disease focused, specific cure model of medical education. Because of the multifactorial nature of many illness states in the elderly, barriers to communication, and the difference in goals for outcome, which often is not that of cure, our trainees expressed frustration in caring for elderly patients within this traditional model of clinical education. Trainees are able to identify the problems that create frustration and affect the quality of care they provide for elderly patients. Assessing these needs and utilizing this information in the development of curricular guidelines is critical to developing effective clinical education for trainees caring for elderly patients. In order to do this, geriatric education must focus on the process of care, as well as the content issues outlined in the American Geriatric Society curricular guidelines. Further studies to elucidate the best methods of implementing curriculum to address these training gaps and the impact of this shift on trainee satisfaction and quality of care received by older patients will be important future directions.

Caring for older patients can be innately rewarding as well. Older patients are often open about themselves, grateful, and often can easily create a relationship with the trainee. Helping the trainee become comfortable in their abilities to care for this population will also help them to appreciate and enjoy the care of older adults.

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Supplementary Material

The following supplementary material is available for this article online at www.backwell-synergy.com

Appendix A. Coding Sheet.