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ORIGINAL RESEARCH

An interdisciplinary geriatric component for a rural summer experience

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A B S T R A C T

Introduction: This article describes the development and implementation of an interdisciplinary component of a rural summer experience for students in multiple health care fields.
Methods: Over a 7 year time frame, an experience involving seminars, discussions and patient encounters was added to a traditional discipline-specific summer rural rotation. The curriculum and its development and maturation are described, with transition from a seminar only to a more clinical experience in geriatrics.
Results: Feedback was uniformly positive. Students felt that the opportunity to interact with learners from other disciplines enhanced the rotation and influenced their approach to patient care within their own discipline.
Conclusions: Logistical and educational challenges are significant, but a relatively modest addition to a traditional rotation can enhance the goals of exposing students to rural care and improving interdisciplinary communication.

Key words: geriatrics, interdisciplinary education, rural training.

Introduction

Rural communities and hospitals continue to struggle to attract health professionals[1,2]. Though the disciplines of medicine and nursing perhaps attract the most public attention, the nature of a smaller integrated system in a rural setting requires enhanced communication and cooperation among professionals in many disciplines, most of which are also under-represented in rural areas. The causes of the

maldistribution of health professionals are complex, but one aspect has been unfamiliarity with and stereotyping of rural practice among students currently training. Schools in the different professions often address this by developing rural rotations, courses, and externships, to provide students opportunities to live and work in a rural setting[3-5]. The basis of this model is that students who have practiced and learned in these environments may be more likely to choose these settings for practice after graduation. Many programs have also been created to provide opportunities for students to work in interdisciplinary teams[6-10]. It was felt that there was an opportunity to combine both approaches by building an interdisciplinary component into a rural summer experience. The area of geriatrics provided a focus because it is a significant need in rural areas and it requires effective interdisciplinary care.

The project was conducted as part of the author's work within The Area Health Education Center (AHEC) program. The AHEC is a federal, state and grant-funded organization to promote health professionals working in underserved areas.

This article describes the development, implementation, and impact of that interdisciplinary component which was offered for students participating in a summer rural experience in Warsaw, New York, from 2003 to 2009. It is difficult to coordinate schedules and academic credit among different schools and universities, so the work was done over the summer. There was no academic credit and it was not an official course for the students. Students received a stipend to participate and either lodging or a mileage allowance for travel. Students came from a wide variety of health related disciplines (Table 1). They were recruited through the professional schools at the University at Buffalo, but also students from other colleges and Universities who had ties to the local area participated. These students were identified through the local AHEC.

Seminar content and development

The Wyoming County Community Hospital was the base for the experience. Leaders within the administration and clinical disciplines affirmed their interest and capability in providing solid experiences in various settings for the discipline-specific part of the summer work. The majority of the students' six-week experience was spent in the hospital or office setting, participating in the work of a busy rural healthcare system. The interdisciplinary component consisted of a weekly half-day seminar/session, which is the focus of this article.

The learning objectives of the interdisciplinary component had two principle themes, to: (i) model, enhance, and teach communication among students from different health disciplines; and (ii) provide insight into rural living and work.

For the first 2 years the curriculum consisted of seminars and discussion of topics relevant to rural living and work (Table 2). All were facilitated by the author with guests and speakers from the local community.

Although the student feedback indicated the seminars were interesting and helpful, they did not adequately address the objective of modeling interdisciplinary clinical care and communication. This became apparent in their evaluations and in the observation that the discussions often involved students' personal perspectives rather than encouraging communication in their professional roles. For this reason, the subsequent 5 years involved a more clinically focused approach to allow students to practice interdisciplinary work.

The area of geriatrics supplies an excellent field for interdisciplinary work[11]. Older patients often have multiple needs, and miscommunication among health providers carries increased risk among these patients. Also, geriatric care is an area of need in many rural areas[12]. The first two learning objectives were maintained and a secondary objective was added to expose the students to basic issues for the care of the elderly. The half-day sessions involved three components: (i) a discussion of geriatric topics; (ii) a visit with a patient by students in interdisciplinary pairs; and (iii) a discussion about the patients seen. The topics and the setting in which the patients lived changed each week (Table 3).

Table 1: Participants by discipline with totals for all years

Participants	
Discipline	***N*†**
Medicine	16
Dentistry	21¶
Pharmacy	8
Physical therapy	2
Speech pathology	3
Occupational therapy	3
Nursing/nurse practitioner	4
Radiology technician	1
Social work	2
Physician assistant	1

†Totals for all years; ¶Except for 2003, as dental students had shorter summer rotations and participated only partially in the interdisciplinary portion.

Table 2: Interdisciplinary Seminar 2003–2004

Session	Subject	Presenters/Resources
1	Living and working in a rural community	Several health professionals met with the group to share personal stories of their life and work
2	Geriatrics	Nursing home administrators and the community office on aging
3	Child and school issues	Professionals from the county early intervention program for children with special needs. School nurses
4	Mental health	The local office for Community Mental Health
5	Public health	The Medical Director of the County Health Department

The curriculum allowed the students to model issues of patient communication and building rapport in their patient interviews. Then in the discussion it was possible to practice interdisciplinary interpretation and reaction to issues such as loss of independence, mobility, care giving needs, end-of-life, polypharmacy, and others.

Results

Students were asked to evaluate the experience relative to the goals by filling out questionnaires. Unfortunately the questions were not the same from year to year because many questions sought specific formative feedback to make changes to aspects of the curriculum. However, two questions were the same each year: (i) Did you find the interdisciplinary half-day session worthwhile? (worth taking time from the discipline-specific work); and (ii) Was the opportunity to interact with students from other disciplines helpful? Every student answered 'yes' to both of these questions. Most of the students felt positively about their summer rural experience, but all of them felt the interdisciplinary work enhanced it. The questionnaire did not ask students to identify their discipline, so no comparisons can be made. This is consistent with most evaluations of interdisciplinary teaching[13-16].

Table 3: Interdisciplinary Seminar 2005–2009

Session	Topic	Interview setting
1	Nursing homes Functional assessment	Nursing home
2	Community resources Caregiving	Home visit
3	Levels of care End of life issues	Assisted living facility
4	Delirium/dementia Polypharmacy	Hospital
5	Depression/mental illness Medicare/finances	Dementia unit

Regarding the interdisciplinary communication objective, the following are representative comments:

> *This was particularly educational for dental students, because I learned a lot of important things that may not necessarily be emphasized in my dental classes. I was able to contribute to our discussions a lot, which made me feel happy and useful.*

> *Seeing patients in pairs helped me a lot. Because I was relatively inexperienced in patient care, my partners explained and taught me certain things that I can use in the future.*

> *In the medical profession, opinions between the various professions can be widespread. The opportunity to discuss situations that effect all the profession was invaluable. Also, trust between the professions is essential.*

Regarding the goal of rural exposure there was some variability depending on the student's previous life experience, but for some students the experience was 'eye opening'.

> *I have learned that the rural setting is a reasonable place to work, even for someone born and raised in the city. I have been able to see many similarities between the two settings.*

> *It is a great learning experience and it provides a view of rural life that people in urban communities have never seen.*

Discussion

It can be difficult to assess the long term impact of learning experiences[10]. Yet providing a positive opportunity to gain both knowledge and personal experience in a new area, in a unique way, may have such impact. However, there are several challenges to such a program.

The very different levels of training and clinical experience led to an educational challenge to make the experience relevant and interesting to all. A student just beginning undergraduate training in Physical Therapy is very different than a second year medical student. This was addressed in several ways. The patient interviews focused on eliciting the patients' stories, not on a formal medical interview. The students were asked to learn about the person, their perception of their health, and their interaction with the healthcare system. During discussion, the group could work together to formulate a problem list, and then talk about how problems might be addressed. The students taught each other. The pairs combined students who were further along in training with those less experienced. The group discussions focused on eliciting everyone's reactions, how

they felt about the patient they saw, rather than on a more formal diagnostic assessment.

The experience also has logistical challenges. Warsaw is about a one hour drive from Buffalo, the city where the medical, pharmacy, dental and many other health professional schools are located, so some students chose to commute rather than live in the community. The AHEC completed a hospitality house which allowed students to live in the community and also interact with each other informally, and the students who did this generally obtained a better sense of the rural life. Students from rural backgrounds are influenced less by the living experience[3,17].

Funding also presented a challenge. The local AHEC obtained much of the funding from a local foundation committed to the specific needs of this rural community, and clearly not all rural communities have such resources. The quality of the experience and student feedback influenced the School of Dentistry to fund their students who participated. All of the resource people from the community volunteered their time and effort. For 2 years the Director of Nursing at the local nursing home co-facilitated the group, but the time commitment was too great for this to continue. The author received support from the AHEC, through the foundation grants.

Conclusion

This project represents an attempt to address three timely and crucial issues: (i) inadequate numbers of health professionals in rural areas; (ii) poor communication and understanding among different health disciplines; and (iii) the need for more knowledge about and commitment to caring for the elderly.

What was learned, and what can be conveyed to others trying to address these issues? The tightly packed curriculum of most professional schools, and the silo organization of the disciplines, makes a summer experience conducted outside the regular academic calendar more practical and less problematic. Students at different stages in their education and far different levels of clinical experience can interact and learn from one another. Their comments attested to the importance and impact of interdisciplinary interaction. One student wrote:

> *The overall experience was fantastic. The ability to discuss with people of different professions helps to break some of the barriers medical professions create. Knowing where other professions are coming from helps in understanding a situation or patient better. And in the end, understanding a patient is the best way to give the most appropriate and efficient care.*

Involving students in conversations with the elderly without expectations for making diagnoses or providing care can emphasize the human and personal aspects of geriatrics, often overlooked in later training focusing on professional care and assessment. Negative stereotypes of rural practice, of old people, and of health disciplines other than one's own can be broken down by relatively simple educational interventions. These experiences can provide clinical and educational opportunities often cherished by the students.

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