Insights from Students Following an Educational Rotation Through Dental Geriatrics


Abstract: Little is known about how dental students respond to dental geriatrics. This article describes a qualitative analysis of reflective journals submitted over two years by ninety-two senior students who participated in a brief clinical rotation in long-term care facilities. We used an inductive interpretive approach to analyze the journals. Eight themes emerged from the analysis: 1) complexity of the institutional environment; 2) heterogeneity of the resident population; 3) multidisciplinary environment; 4) record keeping; 5) interactions with residents; 6) the difficulty of oral health care for frail residents; 7) bridging the gap between theory and practice; and 8) the emotional impact of the clinical experiences. Apparently, the students appreciated the opportunity to witness the complexity of care in a multidisciplinary context and to observe a practical program of oral health care. They described the rotations as unique and emotionally challenging but very worthwhile. Overall, they wrote positively about their experiences with the elderly residents, acknowledged the contribution of the rotation as important to their clinical maturation, and reported that the experience enhanced their appreciation of a dentist’s professional responsibilities.

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Oral health services in long-term care (LTC) facilities have been neglected or limited in most instances to emergency dental treatment. The problem of access to comprehensive oral health care has been identified by residents, facility administrators, and government agencies, yet there is evidence that the dental services in facilities have improved very little over the last few decades. Apparently, dental personnel are reluctant to work in LTC facilities because of the time needed to provide the service, the complexity of the working environment, and the challenge of managing frail elders with complicated physical and cognitive conditions. In general, dentists and dental hygienists are reluctant to work outside the typical dental office, and those who provide clinical services in LTC facilities are very aware of the complicated social environment, special clinical challenges, and perplexing ethical issues they face.

Despite a growing interest in dental geriatrics supported by government regulations on the level of oral health care that should be provided to institutionalized elders, there remains a large discrepancy between the need for care and the extent of the services available. Less than one resident in five within government-certified facilities in the United States received dental services during 1997, and there are indications that the involvement of dentists and dental hygienists might actually have decreased over the last decade. A recent survey by the Association of Dental Surgeons of British Columbia (BC) requested information about the involvement of its members (approximately 2,000) in geriatrics, but only forty-three dentists reported that they were interested in attending LTC facilities (Association of Dental Surgeons of BC, personal communication, June 2004). On the other hand, administrators of nearly half (43 percent) of the 294 facilities in BC have asked the association for help in finding dentists willing to provide this service. This very low level of interest among dentists is similar to that reported from the same area about thirty years ago.

Awareness of the need for geriatrics within the undergraduate dental curriculum has increased substantially, although there is a chronic shortage of faculty to teach the subject. Some geriatrics is taught...
in all fifty-four dental schools surveyed recently in the United States, and most (67 percent) of them have a clinical component exposing students to the management of frail elders. In Europe the situation is less uniform, with no geriatric content in Austrian dental schools, whereas six of the thirty-one German and all four of the Swiss schools expose their students to some geriatrics. Three of the Swiss schools but only six of the German schools offered a clinical experience in an LTC facility to the students.

The benefits of undergraduate courses in dental geriatrics extending over one or more terms have been reported. At the University of Washington, for example, a twenty-week didactic course for junior students followed by a five-week clinical course in the senior year improved skills for planning and coordinating treatment and for providing care. However, improvement occurred mostly during the didactic course, and the clinical experience served mainly to reinforce knowledge rather than enhance clinical competence or self-confidence. In contrast, a survey of dentists in Iowa found that satisfaction from treating elderly patients was influenced more by the quality of the clinical experience than by the formal lectures the dentists received as students. A more integrated educational approach throughout the four-year curriculum was taken at the University of Iowa to provide a multidisciplinary didactic and clinical experience. A similar, although less intensive course has been offered to all dental students at the University of BC over the last quarter century. The typical dentist providing this service in BC is a recent graduate who had some structured experience in geriatrics as a dental student and who appreciates the limitations of working in an LTC facility.

Dentists, like physicians, are influenced by the education they receive; however, the type and extent of the formal dental education in geriatrics range from a few lectures to substantial didactic information and clinical experiences over several terms. It is not yet clear that the type of educational experience influences the future involvement of dentists in caring for frail elders. Many educational administrators see geriatrics as an added burden on a dental curriculum that is already overstretched, whereas others are searching for an optimal educational balance between knowledge and clinical skill. The objective of this article is to describe the structure and implementation of a clinical geriatrics rotation at the University of BC and to provide a qualitative insight to the rotation from the personal reports of dental students.

An Undergraduate Education in Dental Geriatrics

Didactic foundation for the rotation in dental geriatrics occurs in the first three years of the four-year undergraduate dental curriculum at the University of BC as a mixture of lectures and clinical scenarios within a hybrid problem-based learning (PBL) format focused on developing the student’s competence in clinical dentistry. General knowledge relevant to geriatrics is dispersed throughout multiple discipline-based modules and PBL cases during the four-year curriculum. Students receive information from several preclinical and clinical modules about the demographics of aging and the impact of aging on various bodily systems. They also have access to information about the oral health services in LTC facilities attended by the Faculty of Dentistry.

The dental geriatric services offered currently by the faculty to the community include: 1) an educational program administered by a dental hygienist for the staff of the facilities; 2) a diagnostic examination rendered by a dentist for each resident on admission to a facility and an annual re-examination; and 3) comprehensive oral health care when needed by dentists and dental hygienists. The educational program for the staff of each facility provides a series of seminars and clinical demonstrations, supported by a text with clinical photographs illustrating methods of daily mouth care and oral inspections. The oral examination by a dentist follows a standardized protocol for assessing the normal range of physical function. Maintenance and restoration of oral function are based on the concepts of “rational dental care” and a “shortened dental arch,” which are achieved with sensitivity to each resident’s propensity for treatment. Essentially, propensity for treatment addresses the need to consider disabled people within the context of their physical and cognitive abilities along with their overall desire for treatment and ability to benefit from it, while recognizing that dental treatment is likely to benefit self-image and social interaction more than the physical function.

Didactic preparation for managing the needs of frail elders in the first three years of the dental curriculum is followed in the final year by two three-hour clinical rotations—one accompanying a dental hygienist and the other a dentist—in an LTC facility. The learning objectives of the rotations provide students with 1) knowledge of issues influencing the
oral health of elders; 2) awareness of methods relating to oral health care that are effective for educating the staff and administrators of LTC facilities; and 3) exposure to an oral health service for frail elders. Students in pairs are required to accompany the dental hygienist on an educational assignment to the staff of the facility and to help the dental hygienist present information on oral health care. They are required to accompany the dentist who demonstrates how to plan and provide treatment during the course of a routine treatment session in a facility. On average, each student will encounter two or three LTC residents during the rotation with the dentist. Each student is required to write individually a reflective journal on their observations and reactions to what they saw and learned.30

Design of This Study

The objective of this study was to determine positive and negative impact of the clinical rotations by identifying ideas and themes in the personal reflections offered by the dental students. Using an inductive interpretive approach in the tradition of archival research, we analyzed the reflective journals from the ninety-two students who participated in the rotation during 2003 and 2004.

We focused on the personal context in which students experienced and interpreted the rotations by exploring systematically the text of each journal.31,32 We extracted quotations from the collection of journals to illustrate particular themes and associated ideas that represented most effectively the range of experiences, opinions, meanings, and feelings described by the students. In addition, to ensure rigor and interpretive accuracy, we attended to the thoroughness, coherence, and comprehensiveness of the emerging themes from all of the journals as we identified the major themes and ideas. Our objective was to give examples of the multiple viewpoints described by the students, rather than quantify the number of events or opinions, so that the reader can appreciate the range and depth of the experiences, difficulties, and emotions reported by the students.

Results

Eight themes emerged from our analysis of the students’ reflections: 1) the complexity of the institutional environment; 2) the heterogeneity of the resident population; 3) the multidisciplinary environment; 4) record keeping; 5) interactions with LTC residents; 6) the difficulty of oral health care for frail residents; 7) bridging the gap between theory and practice; and 8) the emotional impact of the clinical experiences.

1. Recognizing the Complexity of an Institutional Environment

The rotations offered a realistic insight to the positive and negative complexities of the personal and social environments influencing life in an LTC facility. “I was not completely aware of the circumstances of the geriatric population in LTC facilities,” one student reported, “and this experience opened my eyes to the oral health issues [involved].” Another explained that the “experience helped solidify my knowledge that the geriatric group is a unique set of patients with special needs unlike other patient groups.”

On the other hand, sad feelings were generated by directions in the medical records about what to do when an LTC resident needed resuscitation. It was clear that the students were under no illusions about the complexity, both medically and ethically, of this environment.

2. Heterogeneous Population

The heterogeneity of the resident population was mentioned usually in the context of an awakening as students realized that the residents “are as varied and diverse as the general population” and that the tendency to generalize old people into a homogeneous group did not fit. It surfaced also in relationship to “the range of abilities of the residents . . . [that] varied from people who were fully cognizant, such as the 104 year old grandmother . . . , to people who required a very high level of care.” This observation on diversity was transferred to oral health by a student who reported that “age had nothing to do with the health or number of teeth present.”

3. The Multidisciplinary Environment

The rotations offered a brief opportunity to participate on the periphery of an active multidisciplinary team of health professionals consisting of many disciplines and levels of authority within each facility. Students also noticed the staff wrestling with an array of conflicting priorities, and they
recognized “the importance of education and communication . . . in the interdisciplinary teamwork in order to ensure an adequate care to the residents.”

4. Recordkeeping in the Facilities

The dental hygienist during the first rotation explained the records of care in each facility, which, according to one student, “were extremely large and extremely extensive” in contrast to the charts usually encountered in a dental clinic. Some students found the medical charts in the facilities “sobering” to say the least and sometimes “overwhelming” when searching for information about a resident.

5. Interacting with Residents

A large number of the students were aware that their social interactions with residents helped to prevent and relieve the residents of loneliness, helplessness, and boredom. The residents revealed that they disliked the usual routine of meals and physical exercise, so “a visit to the dentist with a few jokes and laughs was like a bonus [that] brightened the day” and the individual care from the hygienist “is an important part of maintaining normalcy.” Surprisingly, the need to interact socially was not perceived necessarily as an impediment to treatment even if “some of the residents were more interested in holding a conversation and telling stories than [in] the dental treatment they were scheduled for, so it was important not to be in a hurry and give all the patients the attention and time they deserved.” Even more encouraging was a student’s future expectation that “although it may be initially difficult and even frustrating . . . because of the many obstacles . . . the end all that will matter will be a job well done and a smile on someone’s face.”

The difficulty of getting residents to a dentist was reported by a student who encountered a resident “unwilling to leave her bed for her appointment, [and] another, though very friendly, was eating her breakfast and we had to wait for about half an hour for her to finish before she would come down to the clinic . . . getting them into the dental chair from a wheelchair was also not an easy task.”


The environment for dental treatment differed from the familiar surroundings of the dental clinic where the students received most of their practical education. However, students recognized that obstacles to good oral health care in institutions could be attributed to the “variability in patients’ physical and psychological capabilities dictating the way dental treatments are delivered.” The different pace of practice in an LTC prompted a student to acknowledge that it was necessary “to mentally adjust” because “not everything I would like to do for the patients would be feasible.” For example, the constant access to cariogenic drinks and snacks that seems to be an integral part of life in an LTC facility concerned some students until they recognized the conflict between the ill effects of refined carbohydrates on teeth and the psychological comfort and pleasure from sweet foods and drinks.

Moreover, the students realized that many of the residents and their caregivers were pleased with what dentistry, however compromised, could achieve despite the complexity of the situation. This positive impression was revealed by a student who saw “the gratitude that the patients expressed upon completion of their appointment” and who sensed “the feeling of pride and accomplishment as the care provider performed their duties . . . no matter how minimal, to allow these patients to maintain their oral functions [and] to improve their standard of living in their remaining days.”

Students accepted that the dentist and dental hygienist needed written consent for treatment and usually required resolution of ethical issues due to the compromised physical and cognitive status of the residents. Specific aspects of care and treatment were noted by all of the students, particularly relating to communication strategies, physical transfers from wheelchairs, and operation of mobile dental units. The physical demands on the staff due to compromised ergonomics when working with physically impaired elders caused the students some concern; however, it was the difficult and sometimes threatening behavior of some residents towards the staff that invoked most anxiety. One student in particular was shocked by a resident who was sedated initially before treatment but who “began raising her voice and accusing us of hurting her and providing treatment without her consent . . . she even began raising her hand, as if to grab one’s throat, [which] was somewhat disturbing to witness.”

Despite these setbacks, most of the students were aware that “the success of services . . . depends largely on good communication.” Negative encounters with residents who had dementia also distressed some of the students as in the following description:
another resident . . . was wheeled to the basement by the dental team’s assistant . . . [and] while she waited at the door to the dental clinical . . . she cried out, “Hello, HELLO? Where are you? Where have you taken me?” As we went to her aid, she became very apprehensive. A swiftly flowing stream of questions quenched any response we could give her, “Who are you? How do I know if you are a friend? How do I know if you’re telling me the truth?” Shortly, she started to cry, “I want to go home. I want to go home. Please take me home.” And we did.

Experiences such as these are not uncommon here and the issue of dementia can prove to be an enormous block to providing care.

Deafness among residents also often frustrated the students as they attempted to locate the source of oral pain and discomfort, but students were more distressed by residents with painful physical disabilities, such as rheumatoid arthritis, as the following encounter reveals:

We visited a patient [with] severe rheumatoid arthritis. As we entered the room, she was extremely pleasant and talkative. Her wiry white sunburst-like hair was very still when she spoke, as she hardly moved any other part of her body. Her legs look awkwardly twisted to the left of the bed. She told us, “The doctor doesn’t want to give me any more pain pills.” The hygienist asked if we could adjust her slightly so she could “have her cleaning?” The patient agreed whole-heartedly but grimaced uncontrollably when we began to adjust the sheet she laid upon. We stopped immediately and notified the nurse. Tears began to roll down her cheek from the excruciating pain, and she spoke to us about the misfortune of feeling this way, daily.

7. Joining Theory to Practice

Students believed that the rotations helped “to bridge the gap between lecture and PBL materials from second and third years and the real world by providing solid examples of issues that arise for many members of the health care team.” Theories of dentistry and of aging in particular took on a practical meaning because, as one student explained, “Even though some of the things observed have been covered in PBL sessions or geriatric module lectures, I never fully appreciated how unique the geriatric population is in terms of their dental needs, treatment objectives, and the care required. The rotations served to consolidate these theories for me. All these have made me appreciate even more the concept of treating the patient as a whole and how quality of life influences one’s treatment objectives and priorities.”

8. Emotional Impact

Many students were disturbed by the “reality check” and the “enlightening and saddening experiences” encountered. “My roller coaster of emotions was in high gear,” explained one student. Others identified the rotation as “astonishing and rewarding” and “one of the most heart-touching experiences.” Sadness came from seeing “the physical and mental deterioration of most of the residents . . . [with] too many needs for their families to handle” and “so many residents without their families by their sides.” Further reflections became personal as another student “found the environment to be saddening and . . . would not want either of my parents to ever occupy such a facility.” Clearly, it is not easy for young people to be “reminded of the frailty of old age and the inevitability of physical and mental deterioration and death,” as one student put it.

One student summarized very eloquently the unsettling expectations from the rotations, the initial disturbances caused by the smells and sights in the facility, and the eventual relief with an offer of respect on realizing that the residents were not to be pitied:

When I first arrived at the hospital I have to admit that I was quite apprehensive. This was not only due to the fact that I had never been to such an institution, but also because I thought it would be awkward and uncomfortable to observe very elderly people as if we were walking around a zoo. It made me quite uncomfortable to picture myself going room to room, looking down at frail, lifeless patients lying motionless with blank stares. As I stepped into the building I was hit by that unmistakable hospital smell. . . . However, in this case there was something else in the air; it smelled like . . . that same odor that filled my grandparents’ room when I was younger. It was sort of a musky smell. As I walked further into the building I came to an opening, which looked as if it was the
main reception area. I looked to my left and my heart sank. It seemed as though my worst nightmare had come true. At the far end of the main reception area a group of elderly people in wheelchairs were randomly cluttered in front of a television. Most of them were very frail and hunched over and they were completely silent. I winced at the sight as my heart went out to the seemly weak and helpless patients. Then as I looked more closely I noticed that many of the residents were slowly raising their hands into the air, almost in unison. “That’s odd,” I thought to myself, until I happened to look at the television screen and discovered that the residents were watching an exercise program. There was an elderly person in a wheelchair on the screen that was demonstrating the exercises, and the residents were following to the best of their ability. I had a feeling of relief. These elderly residents were not at all frail and lifeless. They were alert and strong and not to be felt sorry for . . . they had earned respect. So that is precisely what they would receive from me: respect.

Despite the gloominess of some personal responses, there was a general sense of professional responsibility. Most of the students suggested that they would consider upon graduation the possibility of attending LTC facilities as part of their general dental practice.

Discussion

Our research method was inductive to explore qualitatively the opinions and feelings of the students about whom we had relatively little information at the outset of the investigation.30,33 The validity of the analysis rests on the rigor of our inductive approach to the students’ reports, the thoroughness, accuracy, and comprehensiveness of our interpretations, and the coherence of our results based on the quotations we selected to express the themes.32

The objective of the dental curriculum at UBC is to offer students a realistic context to interpret and appreciate the clinical relevance of didactic information and to become clinically competent in dentistry.22 There is a general belief that clinical skills will develop more quickly if students manage treatment for patients in a familiar and comfortable clinical setting.22 The reflective journals analyzed in our study contain many words such as “invaluable,” “educational,” and “beneficial and memorable,” indicating that the educational impact of the rotation through geriatrics was mainly positive and productive, although there is no doubt that students found the LTC environment and the health of the residents clinically daunting and somewhat depressing.

These reflections contrast with reports from medical students who indicated that their exposures to unhealthy elders in LTC were generally unpleasant and led to a negative stereotyping of old people.34 Indeed, concerns about the negative potential on dental students of a premature exposure to frail and disabled elders have been raised.20 However, students in their final year at UBC have had extensive experience with relatively healthy older patients as they participate in clinical modules based in dental disciplines, such as prosthodontics and oral medicine. Consequently, when they are assigned to the geriatric rotation, most of them seem well prepared to experience another feature of old age.

Despite improvements in the curricular content of medical schools over the past ten years, medical students continue to receive little education in LTC,35 and physicians spend little time caring for elders in nursing home.36 Medical educators report that medical students who have direct contact with elderly people in LTC are more likely to show a practical interest in clinical geriatrics.37-39 Perhaps dental schools, like medical schools, could increase interest in geriatrics by proactively seeking applicants for admission who have attended to the needs of frail elders before they apply for a dental education.

The students in our rotation expressed a lack of self-confidence about working within the multidisciplinary environment of LTC facilities, and, like dentists in general,10 they were sensitive to the ethical difficulties of caring for people with chronic disabilities. Consequently, the rotation prompted them to question the appropriateness of the treatment ideals they had learned elsewhere and to consider more sympathetically other models of care such as the “rational dental care”6 and the “shortened dental arch”26 aimed at maintaining or restoring oral function and self-respect for individuals who are severely disabled. Students had not anticipated that they would play a role in the social fabric of the LTC facility by providing the residents with social relief and entertainment. It is encouraging to see that the students recognized the benefits of this role.
The emotional impact of the rotation was revealed by the students in a surprisingly honest and explicit way that highlighted the mostly positive but occasionally negative experience. Despite the information they received from lectures, PBL cases, specialized literature, and web-based information, they were still unprepared for many of their encounters with frailty and with an abrupt recognition of their own vulnerability. However, the impacts were very real and prompted many students to acknowledge a professional responsibility as dentists to address this reality. The value of these experiences and the contributions they make to the maturity of students, of course, is immeasurable; they attest strongly to the need for these encounters, no matter how brief, as an integral part of education for all health care providers.

Limitations and Future Research Needs

The credibility of a reflective journal that is a required component of a course should be approached with reasonable skepticism. Undoubtedly, the students aimed to impress their instructors. Consequently, the journals were probably biased towards a positive portrayal of the rotation. Nonetheless, the wide range of topics covered by the journals—and not all of them flattering—shows that most of the students approached their task critically and honestly to acknowledge both positive and negative encounters.

In any event, the relevance of our findings to other faculties and curricula will depend upon the educational similarities to other dental faculties or schools. The accreditation process for dental schools in North America enforces a common overall standard of dental education and a commonality of curricular objectives throughout Canada and the United States. Implementation of these objectives varies considerably in both countries, as we see from the current debate about the relative merits of PBL compared to more traditional educational methods. On the other hand, the main themes emerging from the journals—complexity of the institutional environment, difficulty of caring for frail elders, emotional impact of encountering disability—will probably surface in most situations where relatively young students encounter the needs of frail elders in a health care facility that many students have experienced previously. Consequently, the reflective journals produced at the University of BC are likely to be relevant to dental students everywhere.

Our study does not provide insight as to how successful the rotation will be for enticing dentists into providing dental services for LTC facilities. Previous surveys of dentists in the region indicated that dentists are not much interested in this service and that they felt inadequately educated to deal with frail elders. However, the unwillingness of the dental profession to address enthusiastically the needs of elders in long-term care is not simply a failure of dental education, especially in societies where the negative bias against old age is so deeply rooted. Dental geriatrics is part of a complicated social dilemma that has emerged forcibly within the last few decades, and we believe that a good educational experience, no matter how short, will encourage young dentists to accept the challenge as part of a typical dental practice.

A follow-up investigation is needed to determine specific characteristics of the journals that help to predict dentists who will develop their interest in geriatrics and provide services to frail elders in LTC facilities. The value of PBL cases and simulation exercises that aim to prepare students for a clinical exposure to LTC facilities should be determined, especially with the objective of easing the emotional difficulties that students experience when they first enter these situations.

Conclusion

The students appreciated the opportunity to witness the complexity of care in a multidisciplinary context and to observe dental geriatrics in practice. They felt challenged emotionally by their observations, and overall, they described the two clinical sessions as unique and disturbing but moving, thought-provoking, and very worthwhile. Furthermore, they acknowledged the contribution of the rotation to their clinical maturation and to their appreciation of the professional responsibilities they must face as dentists. Finally, we found that reflective journals served well for exploring the qualitative impact of the clinical rotation, and we are encouraged by the enthusiasm and clarity with which the students wrote them.
Acknowledgments

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