Professional

ISSUES

The Burden of Debt for Canadian Dental Students: Part 1. Review of the Literature

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ABSTRACT

Debt among Canadian university graduates is increasing, while money apportioned to federal and provincial needs-based student assistance programs has been decreasing since the 1990s. Dental students have had to absorb increased tuition fees at both the undergraduate and post-baccalaureate levels. Existing debt and high tuition fees may adversely influence a potential candidate's decision to enrol in dental school. Likewise, debt incurred during the minimum 2 years of pre-dental education adds to the future debt load of dental graduates. It seems that few dental students can remain debt-free during their dental education, although data are lacking about the extent of debt among dental students and its impact on their career decisions.

Government statistics focus primarily on tuition costs for baccalaureate-degree students. Tuition and clinic-related fees constitute a significant proportion of costs for dental students; moreover, university administrations perceive dentistry as an expensive curriculum. This first article of a 4-part series examines debt among dental students, both nationally and internationally.

MeSH Key Words: : education, dental/economics; students, dental; training support/trends

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"Canadians do not need to be told that student debt has become a major problem. Students know it. Their families worry about it. Graduates must deal with it."

— Finance Minister Paul Martin, 1998 budget speech.¹

or several decades, Canadian dentists have been faced with debt upon graduation. In 1993–1994, the average starting debt for Canadian dental students was Can\$2,000 and the average graduating debt was Can\$25,700.² Since then, the level of debt among dental students has increased considerably, beyond the rate of inflation. Some would argue that debt is a necessary consequence of the expensive schooling required for a lifelong vocation in dentistry, but does the level of debt adversely influence the career choices of candidates wishing to enrol in dentistry? To what extent does debt upon graduation restrict dental graduates' freedom of career choice within the field? Does rising debt influence a graduate's choice of practice location or clinical decision making? Are adequate sources of private or governmental funds available for new and continuing loans to students who wish to incur this debt for a career in dentistry?

This is the first of a 4-part series on the issue of dental student debt. The aim of this paper is

to present an overview of the problem of rising debt among dental students, to quantify the extent of debt incurred through dental school, and to examine the philosophy of federal and provincial governments toward rising debt levels. We also compare the situation in Canada with that of other countries to provide perspective on what seems to be a serious financial problem for today's dental students. The 3 subsequent papers report the findings of an electronic survey undertaken to analyze the extent of debt and its impact on dental students' career choices.

Dental Students' Debt, a Global Issue

Dental students' debt is a global issue. The results of the British Dental Association's survey³ of dental students' debt in September 2002 indicated an average debt of £12,100 (approximately Can\$29,000) for students in their final year, about twice the average debt (£6,228, approximately Can\$15,000) of British students completing a 3-year baccalaureate degree. Although these levels of debt reflect the lower tuition fees in British dental schools compared with those in Canadian schools, British government policy about student finances is based on the assumption that students are willing to bear the private costs of their education because of its anticipated benefits.⁴ In the United States, current levels of dental students' debt are so high that many graduates may not be able to manage their indebtedness.⁵ Additionally, high levels of debt may have an adverse effect on students' health: student debt has been reported to contribute to higher levels of stress and burnout among medical graduates.⁶

Between 1997 and 2001, educational debt was cited as one reason for the 25% decline in the number of applicants to dental school in the United States.⁸ U.S. dental school seniors reported that their average educational debt on entering dental school in 2003 was US\$14,097; their mean debt on graduating was \$118,748.⁹ Given such numbers, is it possible for dental students to become complacent about debt? Students who have been at university longer are reported to have higher levels of debt and greater tolerance of debt.¹⁰ In Canada, however, young people of lower socioeconomic status are resistant to the use of debt for education financing.¹¹

Dental student indebtedness in New Zealand has encouraged students to emigrate so that they can repay their debt.¹² Most of these dental students have significant debt on graduation: the debts of more than 97% of dental students graduating in 1998 were greater than NZ\$50,000; many had debts in excess of NZ\$100,000 (approximately Can\$111,250). Repayment of these loans is readily achievable if graduates work overseas in countries such as the United Kingdom, where recent graduates' earnings are substantially higher than those in New Zealand.

Dental Students' Debt, a Canadian Issue

Debt incurred because of higher education affects many students and their families. Websites and chat forums exist solely to discuss the issue of student debt.¹³ The requirement for a minimum of at least 2 years of postsecondary education (in Alberta, Manitoba, Saskatchewan and Montreal, Quebec) forces indebtedness on many prospective candidates wishing to enrol in dental school. Canadian newspaper articles regularly report that baccalaureate-degree students are debt-ridden upon graduating from university. Statistics Canada¹⁴ indicates that students' debt increased by 76% in the 1990s, resulting in an average debt on graduation of \$20,500.

Governmental Attitudes to Student Debt

During the 1990s, federal government money for student loans diminished as a result of spending cuts. In defence of his government's policy, the Minister of Human Resources Skill Development Joseph Volpe asserted that the sum of \$20,000 was "pretty easy" to repay.¹⁵ In 1997, Nova Scotia's Education and Culture Minister Robbie Harrison said that student debt load was "a terrible problem — more can and must be done."¹⁶ In 2004, former British Columbia Minister of Advanced Education Shirley Bond commented that 70% to 80% of a Canadian student's higher education is paid for by taxpayers and that students must invest in their own education.¹⁷ Current government agencies increasingly seem to perceive student debt as an inevitable consequence for those wishing to pursue higher education.

Barriers to Higher Education

Despite the prospect of debt, enrolment in baccalaureate-degree programs at Canadian universities increased by more than 20% between 2000 and 2004. During the same period, average tuition increased to \$4,025 and the national average grade for entry to university increased to 84%. For Canadians of low socioeconomic status, this increase in fees and academic requirements added to the existing academic, financial and informational barriers to obtaining a post-secondary education.¹⁸ In addition, the proportion of government funding for student assistance based on financial need declined from about 65% to 40% between 1990 and 2004. In a recent poll (April 2004), 80% of 800 adult British Columbia residents questioned indicated that rising tuition and funding issues dominated their concerns about higher education and that these issues made it accessible solely to the middle and upper classes.¹⁹

Costs of Dental Education

From 1982 to 2002, tuition fees for dentistry in Canada increased overall by 314%.²⁰ During the academic year 2003–2004 alone, tuition fees in dentistry increased by

21%, from an average of \$9,703 to \$11,733.²¹ Dental students in Saskatchewan, British Columbia and Alberta faced the largest increases, ranging from 45.1% in Alberta to 55.1% in Saskatchewan. In comparison, medical students paid \$9,406 on average (an increase of 16.7%) and law students, \$5,995 (an increase of 19.4%). The following academic year (2004–2005), tuition fees for dentistry increased 5.6%, an average of \$12,331.²²

Do the data on tuition fees for dentistry reported by Statistics Canada represent the true costs of dental education (i.e., the total actual fees for a dentistry program)? This is a difficult question to answer. Most dental schools publish only approximate tuition costs to prospective students, with little and varying information about clinic or instrument fees, and other mandatory or expected fees, making it impossible to estimate costs precisely. The University of British Columbia's faculty of dentistry is unique in its publication of the total actual fees for dentistry.23 Tuition fees also vary according to the year of study in which the dental student is enrolled. Some dental students receive a refund of their tuition fees if their place of residence is in the same province as their dental school. For example, 15 University of Saskatchewan scholarships, valued at \$18,000 per student, are available to students who meet the Saskatchewan residency requirement.²⁴

Prospective dental students would benefit from comparative information about all the costs for Canadian dental schools. Such data could be compiled by the federal government, the Association of Canadian Faculties of Dentistry or other university bodies. Published data about all expenses (e.g., average living expenses and rent, transport costs, and personal computer or laptop ownership, which is mandatory in some institutions) can facilitate financial planning and decision making for the prospective dental student.

Cost-Effective Clinical Dental Education in Canada

Is it time to reassess the model of clinical dental education in Canada? In the United States, several dental schools have closed in recent years, citing high operating costs as the underlying reason for these closures.²⁵ Some dental schools in Canada (e.g., University of Alberta in Edmonton) have circumvented possible closure through amalgamation with the University's faculty of medicine.²⁶ The impetus for this amalgamation is containment of the rising costs of dental education that have been passed on to the university.

Dental schools can and should do more to diversify clinical training to ensure the delivery of cost-effective dental education through more efficient use of resources.²⁷ Dental schools that embrace the trend toward a corporate style of management should ensure that changes implemented bring about the cost savings or the desired revenue generation that managers anticipate and do not add to the students' financial burden.

Government funding of dental school clinics providing treatment by dental students could alleviate the financial burden of university dental education programs and their students. In the United Kingdom, students provide supervised oral health care in dental schools under the umbrella of the National Health Service (NHS). The central government funds this service through NHS, in addition to the university funding government provides for dental school education. In Canada, no such federal health care funding for dental treatment provided by students within dental schools exists. As a result, the burden of costs for the dental school clinics falls on university funding or, increasingly, on the students themselves. Some U.S. dental schools have clinical attachments to extramural clinics for dental students. These clinics benefit the education of dental students, reduce the costs of providing a dental school-based clinic and help meet the needs of underserved populations.²⁸

Role of Government Funding

Provincial government initiatives to introduce tuitionfee capping without increasing core funding have also added to universities' financial burden.²⁹ Inevitably, such artificial inhibition of the funding of dental education causes a strain on university finances. Since 1994, current federal government transfer payments to provinces for post-secondary education in Canada has decreased by \$1.7 billion.³⁰ Without federal government funding, dental students are forced to absorb a higher proportion of the rising costs.

Although the federal government provides interestfree student loans until the student has completed his or her education, the maximum amount a typical dental student can receive (approximately \$12,000 for a single student)³¹ is significantly less than current costs of tuition. Needs-based financial assistance would greatly assist candidates choosing to pursue a dental education by helping to reduce the financial hardship incurred by students of lower socioeconomic status.

The Association of Canadian Community Colleges lobbied Parliament in 2001 to change the antiquated Canada Student Loan system developed in the 1960s, calling for a new learner support system to meet the diverse needs of post-secondary students.³² A legitimate argument exists for having government loans that match the education and living expenses of individual students wishing to pursue professional education. Lending money to dental students is a good low-risk investment for the private sector. It is therefore reasonable for government to enter this arena on the basis of social equity. All students who are accepted into a Canadian dental school should, if they desire, have access to government loans to allow them to pursue their studies in dentistry. The incomes of those in the profession are not relevant to government as long as the loans are made at a reasonable rate of interest.

Suitably qualified (perhaps even gifted) candidates from low-income families may be deprived of the choice of a dental career if the cost of an education in dentistry is too high. Compare the mounting evidence of a similar lack of access and funding for lower-income medical school students. The numbers of medical students from lower-income families in Canada have decreased.³³ Worse, medical school graduates from low-income groups have significantly higher debt levels than their peers in the highest income group.³⁴

Effects of Future Debt on Students' Choice of Dental School

The prospect of future debt may restrict the choice of dental school for some students who are pressured to stay at home during their studies. There is a direct financial benefit to living at home while studying. As costs rise, and access to borrowing becomes more difficult and costly, students are less likely to choose the dental school that best meets their needs and interests, and are more likely to select a school close to home.

Effects of Student Debt on Career Choices

Repayment of student loans may take years to complete after graduation from dental school. Working parttime to repay debt as a dental student is difficult because of the intensive nature of the program. Some dental graduates experience difficulty meeting basic expenses in the early years of their dental education.³⁵ The prospect of a good income in dentistry must then be weighed against the debt incurred during dental school and the time taken to repay it. This may, in part, explain the recent significant decrease in applicants to U.S. dental schools, in addition to changes in the economic climate.⁷

Student debt may influence the career decisions of recent dental graduates, although there is little published evidence of this. Most graduates enter general dental practice. The cost of entering a specialty program of 2-6 years' duration can be prohibitive for those with high debts incurred during dental school. Dental education also suffers because of student debt; graduates cannot afford to consider an academic career for financial reasons.³⁵⁻³⁷ Military service can help to reduce the burden of debt during dental school, but it commits the student to an extended period of service in the Armed Forces upon graduation. A potential solution might be to follow the model of a U.S. government-led initiative for new physicians that enables them to provide medical services to underserved communities in exchange for relief of some of their debt for each year of service.³⁸

Potential Effects of Debt on Clinical Practice

No published studies link recent graduates' overprescription of dental treatment to student debt. The professional standards introduced in dental school and the disciplinary proceedings published by licensing bodies should be sufficient to discourage recent graduates from engaging in such practices, but the concern remains that excessive debt may tempt financially burdened practitioners to overtreat or overbill patients.

Conclusions

Contemporary information about the burden of debt among Canadian dental students and the effect of debt on their career choices is lacking. Such information would benefit government and university administrations, those contemplating a career in dentistry, and bodies involved in planning for future dental human resources. Finally, despite the relatively high incomes of professional dentists, the full costs must be known so that prospective students can make informed cost-benefit choices. A high prospective income alone is no guarantee that the profession is sustainable at any cost of entry. >

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References

1. Department of Finance. Budget 1998. Helping manage student debt. Available from: URL: http://www.fin.gc.ca/budget98/pamph/studpae.html (accessed June 2006).

2. McDermott RE, Fuglerud KP. Indebtedness of dental school graduates in Canada: mortgaged futures. J Can Dent Assoc 1996; 62(3):253–60.

3. The United Kingdom Parliament. Select Committee on Education and Skills. Memorandum submitted by the British Dental Association. February 2003. Available from: URL: http://www.parliament.the-stationery-office.co.uk/pa/cm200203/cmselect/cmeduski/425/3061207.htm (accessed June 2006).

4. Christie H, Munro M. The logic of loans: students' perceptions of the costs and benefits of the student loan. *Brit J Sociol Educ* 2003; 24(5):621–36.

5. Myers DR, Zwemer JD. Cost of dental education and student debt. *J Dent Educ* 1998; 62(5):354–60.

6. Heins A, Keehn C. Financial crisis for medical students and residents. *Ann Emerg Med* 2003; 41(5):733–5.

7. Weaver RG, Ramanna S, Haden NK, Valachovic RW. Applicants to U.S. dental schools: an analysis of the 2002 entering class. *J Dent Educ* 2004; 68(8):880–900.

8. Weaver RG, Haden NK, Valachovic RW. U.S. dental school applicants and enrollees: a ten year perspective. *J Dent Educ* 2000; 64(12):867–74.

9. Weaver RG, Haden NK, Valachovic RW. Annual ADEA survey of dental school seniors: 2003 graduating class. *J Dent Educ* 2004; 68(9):1004–27.

10. Davies E, Lea SE. Student attitudes to student debt. J Econ Psych 1995; 16(4):663–79.

11. Corak M, Lipps G, Zhao J. Family income and participation in post-secondary education. Ottawa, Ontario: Statistics Canada; 2003. Available from: URL: http://www.statcan.ca/english/research/11F0019MIE/11F0019MIE2003210. pdf (accessed June 2006).

12. The Dental Council of New Zealand. Dentist exodus continues. *DCNZnews* June 2002; p. 6. Available from: URL: http://www.dentalcouncil.org.nz/ Documents/DCNZNews/JUN2002.pdf (accessed June 2006).

13. Canada Student Debt website. Available from: URL: http://www.canada studentdebt.ca (accessed June 2006).

14. Statistics Canada. National graduates survey: student debt. *The Daily* April 26, 2004. Available from: URL: http://www.statcan.ca/Daily/English/040426/ d040426a.htm (accessed June 2006).

15. Students leave university owing \$20,000. *The Province* 2004 April 27; Sect. A:10.

16. Government of Nova Scotia. Minister, students work toward debt reduction. News Release Archives. October 21, 1997. Available from: URL: http://www.gov.ns.ca/cmns/msrv/viewRel.asp?reIID=/cmns/msrv/nr-1997/nr97-10/97102105.htm (accessed June 2006).

17. Fournier S. Poll ties university to wealth. *The Province* 2004 April 15; Sect. A:14.

18. Junor S, Usher A. The price of knowledge 2004. Access and student finance in Canada. Canada Millennium Scholarship Foundation; 2004. Available from: URL: http://www.millenniumscholarships.ca/images/Publications/Price_of_Knowledge-2004.pdf (accessed June 2006).

19. Ipsos-Reid poll on post-secondary education in B.C. April 15, 2004. Available from: URL: http://www.queensu.ca/cora/polls/2004/April15-bc_ university.pdf (accessed June 2006).

20. Canadian Association of University Teachers. Access denied: the affordability of post-secondary education in Canada, 1857 to 2002. *Education Review* September 2002; 4(1):1–7. Available from: URL: http://www.caut. ca/en/publications/educationreview/educationreview4-1.pdf (accessed June 2006). 21. Statistics Canada. University tuition fees. *The Daily* August 12, 2003. Available from: URL: http://www.statcan.ca/Daily/English/030812/d030812a. htm (accessed June 2006).

22. Statistics Canada. University tuition fees. *The Daily* September 2, 2004. Available from: URL: http://www.statcan.ca/Daily/English/040902/d040902a. htm (accessed June 2006).

23. University of British Columbia Faculty of Dentistry. Financial information. Available from: URL: http://www.dentistry.ubc.ca/academic_programs/dmd/financial_information.asp (accessed June 2006).

24. University of Saskatchewan. Scholarships. Available from; URL: http:// www.usask.ca/calendar/dentistry/general/scholarships (accessed June 2006).

25. Meskin LH. And then there were none. J Am Dent Assoc 1998; 129(3):274-6, 278.

26. Mulcahy DF. Amalgamation: choice or necessity? J Can Dent Assoc 1999; 65(4):229–30.

27. Bailit H, Weaver R, Haden K, Kotowicz W, Hovland E. Dental education summits: the challenges ahead. *J Am Dent Assoc* 2003; 134(8):1109–13.

28. Meskin LH. A debt service. J Am Dent Assoc 1999; 130(4):460, 462.

29. Confederation of University Faculty Associations of British Columbia. Budget 2005 — déjà vu all over again. February 18, 2005. Available from: URL: http://cufabc.harbour.sfu.ca/dispart.php?artid=a1134&subm= main (accessed June 2006).

30. Schmidt S. Provinces feel bite of cuts in advanced education cash. *The Vancouver Sun* 2005 April 5; Sect. A:8.

31. University of British Columbia. Awards, fees and finances. The British Columbia Student Assistance Program. Available from: URL: http://students.ubc.ca/finance/loans.cfm?page=bcsap (accessed June 2006).

32. Association of Canadian Community Colleges. Canada's colleges and institutes call for new learner support system. June 5, 2001. Available from: URL: http://www.accc.ca/ftp/zGov-Relations/0106-StudentDebt-PR.pdf (accessed June 2006).

33. Kwong JC, Dhalla IA, Streiner DL, Baddour RF, Waddell AE, Johnson IL. Effects of rising tuition fees on medical school class composition and financial outlook. *CMAJ* 2002; 166(8):1023–8.

34. Cooter R, Erdmann JB, Gonnella JS, Callahan CA, Hojat M, Xu G. Economic diversity in medical education: the relationship between students' family income and academic performance, career choice, and student debt. *Eval Health Prof* 2004; 27(3): 252–64.

35. Jones DG. Dental student debt looms large. J Calif Dent Assoc 2000; 28(2):97–9.

36. Schenkein HA, Best AM. Factors considered by new faculty in their decision to choose careers in academic dentistry. J Dent Educ 2001; 65(9):832–40.

37. Chan MW. The future of clinician-scientists in Canada. J Can Dent Assoc 2004; 70(6):379–81.

38. Ariyan S. The rising level of medical student debt: potential risk for a national default. *Plast Reconstr Surg* 2000; 105(4):1457–64.