INTRODUCTION

Although studying to become a physician is a privilege, pursuing a medical education in Canada comes at a great financial sacrifice, as medical school tuition rates can be quite exorbitant. In particular, the average cost of medical school tuition in Ontario is $24,151 [1]. To put this value in context, the average medical school tuition in Nova Scotia, British Columbia, and Saskatchewan, which are the three provinces with the next highest educational fees following Ontario, are $20,681, $18,473, and $17,998, respectively [1]. Furthermore, an analysis by the Ontario Medical Students Association (OMSA) found that Ontario medical tuition rates have increased by about 5% every year since 2000 [2]. It is unclear why a medical education in Ontario is so much more costly than a medical education in other provinces. Several proposed reasons for this discrepancy include a higher demand for medical education as well as a greater supply of resources (e.g. high-tech simulation labs) and career advancement opportunities (e.g. observerships, clinical electives, etc.) [3,4].

In general, there is a worrying trend of increasing medical student debt. According to a survey conducted by the Association of Faculties of Medicine of Canada (AFMC), the average education debt of Canadian medical graduates in 2019 was $160,000, which represents a significant increase of more than 150% from $72,000 in 2014 [5]. Moreover, during this same period from 2014 to 2019, the number of students who completed medical school without any debt decreased by 3.3% to about 14.2%. In addition, the number of medical students who shoulder substantial financial burden has dramatically increased, as 13.6% of students report debts of over $200,000 in 2019, a significant increase from 4.1% in 2010. While medical students are more likely to take on large amounts of debt in medical school, it is not uncommon for students to start their medical studies with pre-existing debt, with approximately 1 in 4 students having debt before entering medical school [6].
Financial burden shouldered by medical students can have adverse effects on their academic performance and personal wellbeing. One systematic review found that educational debt was negatively correlated with academic performance among medical students [7]. In particular, they found that an increase in students’ debt was associated with a decreased likelihood that they would receive passing marks on high stakes examinations on their initial attempts. In terms of wellbeing, one large Canadian study reported that medical students outside Quebec had had significantly higher stress and anxiety levels compared to those in Quebec, which was at least partially explained by higher tuition rates outside the province [8]. Another study found that Canadian medical students from rural communities, who reported higher debt rates before entering medical school, experienced greater levels of financial stress compared to non-rural students [9].

The impact of these costs tends to disproportionately affect students from families of lower socioeconomic status. In particular, a 2005 report by the Ontario Confederation of University Faculty Associations found that over a period in which medical school tuition in Ontario increased from $5,000 to $14,500, there was a dramatic decrease in the proportion of medical students from families with incomes under $40,000 from 23% to 10% [10]. This report also found that medical students in Ontario cited economic factors as having a great deal of influence on their choice of specialty and location of practice, which contrasted with medical students from other provinces with lower medical school tuition rates. This association between socioeconomic burden and clinical career choice is corroborated by over 10 years of data from the Canadian Residency Matching Service (CaRMS), which showed that level of educational debt accumulated to date was “somewhat influential” or “very influential” for over half of all respondents in determining specialty choice while income potential was found to be “very influential” for approximately 61% of all respondents [11]. Additionally, salary was considered “somewhat influential” or “very influential” for about 66% of all respondents when determining program location and cost of living was shown to be “very influential” for approximately two-thirds of all respondents.

Taken together, the literature demonstrates that there is an unaddressed gap with respect to medical student finances. One potential solution is to provide training on financial literacy. This view is endorsed by leaders in the field, as seen in one study that found 87% of general surgery program directors believed residents should be trained in financial management [12]. There are practical benefits of such training, with one study reporting an association between increased financial literacy with lower educational debt, higher productivity levels, and increased life satisfaction [13]. Nevertheless, medical students do not seem to be receiving adequate training in financial literacy. One study of residency alumni across all specialties found that financial literacy was inadequately emphasized in either medical school or residency training [13]. With respect to Ontario, a survey of students from each of the six Ontario medical schools found that there was a range in the quantity and quality of financial literacy training they received. Specifically, the length of curricular time dedicated towards financial literacy education ranged from none to four hours, wherein the majority of the material was delivered using either didactic or online sessions [14]. Furthermore, few schools offered one-on-one financial advisement and none included information on aspects of finances as they relate to clinical practice, such as billing.

The aim of this position paper is to provide actionable recommendations to start the discussion around the integration of financial literacy into undergraduate medical education.
PRINCIPLES

The Ontario Medical Students Association makes its recommendations for the adoption of financial literacy education in medical school using the following guiding principles:

1. Undergraduate medical education presents an opportune time to introduce financial literacy education, as it lays the groundwork for future practice.

2. Improving financial literacy among medical students can improve both their financial and mental wellbeing.

3. Medical students can also benefit from early introduction to practical aspects of career finances, such as billing.

RECOMMENDATIONS

The Ontario Medical Students Association recommends the following:

1. That undergraduate medical education incorporate mandatory financial literacy training into their curricula.

Providing training on financial literacy can be effective in teaching the knowledge and skills to financial acumen. One meta-analysis found that formal financial education of various lengths and styles in elementary, middle, and high schools increased financial knowledge of students across age groups [15]. In terms of implementation, programs using active learning strategies, such as simulations and experiential learning, were more likely to lead to improved understanding of financial concepts and successful results.

Additionally, financial literacy at an undergraduate level has demonstrated effectiveness. In a study of one financial literacy course at an American university, participation was positively associated with improvements in students’ money management habits [16]. In particular, students described a greater interest in “healthy” financial behaviours, such as paying off debt and increasing their savings.

Recently, there is emerging literature on the effectiveness of financial literacy interventions among medical trainees. In a study of 52 internal medicine interns, participants completed a 90-minute interactive seminar on personal finance covering a variety of topics, including income and spending, debt management, taxes, insurance, and retirement savings. Participants completed pre- and post-intervention surveys, self-assessing their knowledge of personal finance and rating their interest in making changes to their retirement account allocations. It was found that internal medicine interns demonstrated inadequate financial knowledge on their pre-test surveys. A single 90-minute seminar on personal finance led to significant changes in retirement savings allocations, potentially having profound long-term impacts on their financial stability [17].

Given this literature, we ask that the OMSA formally advocate for increased personal finance education during curricular hours. We recognize that the specifics will likely vary depending on a student body’s unique needs and level of buy-in; however, at minimum, undergraduate medical education programs should offer training in financial basics (e.g. value of money, checking vs. savings accounts, budget building, etc.), rules surrounding borrowing (i.e. credit cards, lines of credit, etc.) and debt management, planning for major life events (e.g. marriage, home-owning, etc.), retirement plans, insurance, and
investing strategies. These concepts should be structured as interactive sessions (i.e. self-study modules on their own are not sufficient) and should be delivered by qualified presenters.

2. That undergraduate medical education incorporate teaching on billing and remuneration in clinical practice

Billing practices are highly complex and new physicians often struggle to ensure proper documentation. One qualitative study found that residents’ poor understanding of billing was high among their list of financial concerns [18]. Additionally, in a 2018 national cross-sectional survey of all organizational stakeholders involved in the education of all levels of medical trainees, the vast majority (89%) of participants surveyed believed medical billing should be formally taught [19]. Furthermore, teaching these practices early in medical training is favourably received. In an American-based pilot study of a new undergraduate medical curriculum on billing, students felt generally positive about the training [20].

We ask that OMSA encourage medical schools to teach proper coding and billing practices as part of their formal curricula. This information can be incorporated as part of schools’ second-year clinical skills course, where it would be appropriate and relevant preparation for clerkship. Key aspects of coding and billing for outpatient office visits, namely medical history, physical examination, and clinical decision-making, should be explained and students should be required to complete write-ups and notes to demonstrate their understanding. Including “medical administrative” content in already-overcrowded undergraduate curricula will pose considerable challenges; however, we highlight that regulatory paperwork is a necessary prerequisite for practicing medicine in Canada and improper practices are a major driver of rising healthcare costs [18]. Fostering development of good habits during undergraduate training will likely prove beneficial for students’ future professional and personal financial health.

3. That undergraduate medical education provide resources and support for development of extracurricular activities in personal finance and debt relief strategies

Extracurricular opportunities, such as academic enrichment programs, interest groups, and lunchtime talks, offer innovative ways to engage medical students in discussions of personal finance. Research has shown that student-led finance and investment clubs offer a path from in-class learning to active pursuit of financial leadership opportunities [21]. Furthermore, extracurricular activities in finance enable students to improve their critical analysis, problem solving, and decision-making skills with regards to finance, which are vital when graduates go on to serve their communities in today’s competitive global environment [21]. Research also shows that financial literacy interventions are more effective when people actively seek them, rather than when instruction is passively delivered [22], which supports the notion of creating extracurricular pathways for students to be self-directed in their financial learning.

We ask that OMSA help create extracurricular environments that promote advancement of financial literacy skills for Ontario medical students. This could be accomplished by a number of avenues. First, OMSA’s Education Committee should consider making financial literacy in medical schools a portfolio priority. Such a strong stance by OMSA would go a long way in attracting much-needed attention for useful topics that have been largely ignored in medical education up until now. Additionally, we ask that OMSA oversee development of personal financial resources designed specifically for medical students, such as a free downloadable “Financial Cheat Sheet.” Finally, OMSA can look for ways it can empower students to take control of their own financial learning. This may include offering funding for finance-focused student initiatives and/or launching a third monetary award program (alongside current “Art of Medicine” and “Hidden Hero” Awards) which recognizes students for learning important money lessons and getting a head start on their personal finance journeys.
4. That medical schools consider providing students with access to one-on-one meetings with either a hired financial advisor and/or faculty with financial expertise for financial advisement

Financial advisement can provide important feedback to medical students in their financial planning. In a survey of 346 residents across various specialties, less than 1 in 5 respondents reported having a financial advisor. The most common reasons for not consulting a financial advisor were cost and lack of knowledge on how to find one [23]. Interestingly, participants generally disagreed with the statement, “I feel comfortable finding reliable and unbiased financial advice”, and approximately 17% of respondents indicated they would not trust a financial advisor. The authors suggested that stronger personal finance education in medical school or during residency may increase residents’ confidence in their own financial decisions and allow them to distinguish legitimate financial advising from ill-intentioned offers.

We ask that OMSA advocate for more opportunities where students and qualified financial advisors can connect while in medical school. Specifically, we believe that one mandatory financial planning session should be provided to all fourth-year medical students at a minimum. Some Ontario medical schools, such as the University of Toronto’s MD Program, already offer on-demand appointments with an in-house financial aid counsellor and it is recommended other schools follow suit. Moreover, OMSA should consider running periodic personal finance panels and/or publishing finance-focused blog posts on its website, potentially in collaboration with established financial institutions such as TD Bank, thereby improving availability of expert advice.

Conclusion

Pursuing a medical education, especially in Ontario, is a costly endeavour for most aspiring physicians. High tuition costs and debt have been shown to disproportionately affect trainees coming from lower-income and/or rural backgrounds and may have a negative impact on students’ academic performance and mental health. Despite a large number of medical trainees considering personal financial literacy a priority, Ontario medical schools devote little time to its direct or indirect teaching. Moving forward, Ontario medical schools should more comprehensively incorporate personal finance training into their curricular and extracurricular offerings and provide more opportunities for one-on-one financial advisement. These actions would in turn reduce medical student debt burden and its associated impacts and better set up Ontario medical students for long-term success following graduation.
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