

Caribbean offshore medical schools and the international mobility of medical education

by
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Abstract

Caribbean offshore medical schools are private, for-profit institutions that provide medical education to international students, including from the US and Canada, who intend to leave the region to practice medicine. Offshore medical schools are distinct from regional medical schools because they do not principally serve a local population. This offshoring industry contributes to the movement of health workers across international borders, and should be considered alongside other global healthcare mobilities. This thesis uses three datasets to reveal the narratives that surround offshore medical schools. First, a content analysis of institutional websites shows how offshore medical schools promote themselves to prospective students. Second, a qualitative media analysis exposes dominant themes and ideologies that frame discussion of offshore medical schools, and the Canadians they graduate, in the Canadian print media. Finally, perceptions of offshore medical schools held by stakeholders involved with Canadian medical education and the physical workforce are revealed using qualitative interviews.

Keywords: offshore medical schools; Canadians studying medicine abroad; health geography; qualitative research

Dedication

For my Grandmother, Margaret Rodger.

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List of Acronyms

CAAM-HP	Caribbean Accreditation Authority for Education in Medicine and other Health Professionals
CaRMS	Canadian Resident Matching Service
CIHR	Canadian Institutes of Health Research
CSA	Canadians studying medicine abroad
FAIMER	Foundation for Advancement of International Medical Education Research
IMG	International medical graduate
MCAT	Medical College Admission Test
MCCEE	Medical Council of Canada Evaluating Examination
SFU	Simon Fraser University
UK	United Kingdom
US	United States
USMLE	United States Medical Licensing Examination
WFME	World Federation of Medical Education

Chapter 1.

Introduction

The globalization of health services—enabled by new communication, transportation, and biotechnologies—has radically transformed the means of healthcare training, delivery, and access (Parry, Greenhough, Brown, & Dyck, 2015). The global restructuring of health services is reflected in growing participation in cross-border care, the formally-arranged movement of personnel and consumers, and an increasing number of bi-lateral agreements (Chanda, 2002). These international flows of patients, providers, and trainees are considered ‘international healthcare mobilities,’ which include practices such as medical tourism (Turner, 2012) and health worker migration (Aluttis, Bishaw, & Frank, 2014). This global trade in health services includes the internationalization of medical education, demonstrated by the increasing number of medical schools actively recruiting international students and international medical graduates (IMGs) (Ho, Shaw, Liu, Norris, & Chiu, 2015). This thesis contributes to the literature on the globalization of health services by positioning Caribbean offshore medical schools, and the Canadians they graduate, as an emerging global healthcare mobility with unique social, political, and economic impacts on health systems both in Canada and beyond.

Offshore medical schools are private, for-profit institutions located in the Caribbean¹ that provide undergraduate medical training, primarily to international students, including those from the United States (US) and Canada (Eckhert, 2010). Graduates from offshore medical schools leave the Caribbean for clinical and postgraduate residency training (van Zanten & Boulet, 2013; Halperin & Goldberg, 2016). Ultimately, the overwhelming majority of graduates also leave the Caribbean region to practice medicine. These characteristics set offshore medical schools apart from regional universities in the Caribbean, notably the University of the West Indies, which principally serve regional populations.

¹ This thesis uses a political definition of the Caribbean, including full and associate member states of the Caribbean Community (CARICOM), in addition to Aruba, Curacao, Saba, and St. Maarten which are outside of CARICOM but are the sites of multiple offshore medical schools.

This thesis uses qualitative research methods to explore perceptions of Caribbean offshore medical schools and the Canadians they graduate held by various stakeholder groups. This chapter begins by outlining frameworks that situate my research, including concepts in health geography, mobility, and social accountability. This is followed by a review of the literature on offshore medical schools and Canadians who study medicine abroad to contextualize my research. Next, I provide an outline that discusses the methods and key findings of the three empirical chapters of this thesis. This includes articulating the significance of this thesis as it relates to medical education research and health geography broadly. I conclude by offering a statement of positionality, situating myself and reflecting on my experience conducting this research.

1.1. Situating This Research

Medical education research is interdisciplinary, requiring concepts, frameworks, and methods that expand far beyond the boundaries of the medical field (Hodges, 2005; Bligh & Parsell, 1999; Albert, Hodges, & Regehr, 2007). This thesis uses three interdisciplinary approaches to critically examine Caribbean offshore medical schools and the Canadians they graduate: health geography, global healthcare mobility, and social accountability. Here I justify the use of these approaches in this thesis, followed by a brief overview of each in the subsequent sections.

First, I situate my research in the field of health geography, which broadly involves uncovering relationships between health and place. Access to health services is an established research interest of health geographers, with many researchers in the sub-discipline explicitly committed to examining issues of health (in)equity as they relate to service access. Access to medical education translates to access to health care for patients as “medical care is the ultimate outcome of medical education” (Gonnella, Callahan, Louis, Hojat, & Erdmann, 2004, p. 9). Meanwhile, equity in access is addressed as the location of medical training, particularly the location of residency and vocational training, is closely associated with the ultimate location of practice. For example, in the context of addressing specific rural physician shortages, increasing the number of medical students from rural backgrounds, and providing learning experiences in rural locations, will “increase the number of graduating physicians with the interest, knowledge and skills for rural practice” (Rourke, 2010, p. 396).

Second, I position the flow of Canadians studying medicine at Caribbean offshore medical schools alongside other forms of ‘global healthcare mobility.’ These mobilities refer to the movement of “bodies across borders” (Parry, Greenhough, Brown, & Dyck, 2015) to facilitate different forms of medical care, including practices such as medical tourism or health worker migration. Third, I draw from foundational principles of social accountability in medical education to critically define the responsibilities that medical schools may have to the communities they serve. These three lenses frame my approach to understanding Caribbean offshore medical schools and the socio-spatial processes that maintain them.

1.1.1. Health Geography

Health geography is concerned with the relationships between health and place, and considers the social, political, and economic forces that contribute to wellbeing (Kearns & Moon, 2002; Kearns, 1993). Representing a cultural turn away from medical geography and positivism, health geography holds multiple understandings of place and centres health and wellbeing as key outcomes of place relations (Kearns & Moon, 2002). Accordingly, health is greater than merely the absence of disease (World Health Organization, 1946) and place is more than a “passive container in which things are simply recorded” (Kearns & Moon, 2002, p. 609; Giesbrecht, Crooks, & Morgan, 2016). To account for broad understandings of health and place, health geography is interdisciplinary and epistemologically diverse (Rosenberg, 2016; Luginaah, 2009).

Access to health services is an established research priority in health geography, particularly models of access that prioritize health equity (Rosenberg, 1988; Kearns & Moon, 2002; Luginaah, 2009; Earickson, 2000). The pursuit of equity refers to the elimination of disparities in health or access to services between groups of different levels of social advantage (Braveman & Gruskin, 2003; Whitehead, 1992). There are many known factors that contribute to inequities in patient access to health care, including both ‘demand side’ and ‘supply side’ barriers (Canadian Medical Association, 2013). Demand side barriers describe patients’ ability to perceive, engage, pay, or reach health care (Canadian Medical Association, 2013), including health literacy (Levy & Janke, 2016), language or cultural barriers (Bowen, 2001; Taylor, Nicolle, & Maguire, 2013), and even postponing care due to work or childcare requirements. Supply side barriers describe the availability, affordability, and appropriateness of health care (Canadian Medical

Association, 2013), including stigmatizing attitudes of health care providers (Nyblad, Stangl, Weiss, & Ashburn, 2009) or prohibitive costs (Tang, Ghali, & Manns, 2014). Of particular interest to health geographers is inequitable differences in access to health services across geographic scales. For example, in the Canadian context, research has accounted for disparities between local (e.g., Bell, et al., 2013; Carter, et al., 2016), urban/rural (e.g., Sibley & Weiner, 2011; Parker, et al., 2012), national (e.g., Fleet, et al., 2014) and global (e.g., Synder, et al., 2015) populations. This thesis considers access to medical training at the global scale, focusing on Canadians studying medicine abroad at Caribbean offshore medical schools and their pursuit of medical education across international borders.

1.1.2. Global Healthcare Mobility

Human geographers have contributed towards advancing conceptual understandings of ‘mobility’, which Sheller & Urry (2006) understand as part of the ‘new mobilities’ paradigm within the social sciences. Even though mobility is occurring at greater speeds and intensity than ever before, the new mobility paradigm emphasizes the importance of place and power relations in regulating flows, rather than submitting to the belief that flows of mobility operate in a ‘smooth world’ with no fixed boundaries (Sheller & Urry, 2006; Miller & Ponto, 2016). In other words, who and where you are matter a great deal when considering the potential for mobility. Reflecting these physical and social components, Kwan & Schwanen (2016) view mobility as: “bifurcated between an objective, primary realm of brute fact–movement–and a further reality of secondary qualities and human “additions”–meanings, sensations, perceptions, feelings, and so forth” (p. 245). This thesis considers these dual realities: grounded in the brute movement of Canadians traveling across borders to access medical education, while accounting for the perceptions, feelings, and meanings assigned to this global flow by Canadian stakeholders.

The ‘mobilities turn’ has influenced health geographers specifically to move beyond static representations of space (Gatrell, 2011), which has encouraged a wide-range of research topics across scale. This includes health geography’s interest in access to healthcare, which incorporates mobility by considering the movement of people, knowledge, and capital across space to facilitate the provision of health services. True to form, health geographers’ conceptualizations of mobility and access continue to

have a keen focus on equity, which is operationalized as who can access mobility and the impacts of mobility on origin and destination communities on health, policy, and access to health services. As Gatrell (2011) explains: “people travel to access healthcare in other countries, but need the means of transport, the material resources, to do so” (p. 4). The same holds true for accessing medical education abroad.

This thesis engages with mobility and access to health services at the international scale, and as such this work is meaningfully positioned alongside other global healthcare mobilities, such as the health worker migration (e.g., Labonté, et al., 2015; Isaksen, 2012), short-term physician voluntourism (e.g., Asgary & Junck, 2013; Allen, Dyott, & Jesus, 2012), access to health services in the context of international retirement migration (e.g., Marshall, et al., 1989; Dwyer, 2001), and medical tourism (e.g., Johnston, et al., 2010; Cohen, 2012). I consider offshore medical schools as contributing to healthcare mobility given the close relationship between medical training and health systems. For example, not only is the delivery of health care the ultimate outcome of medical education, but medical education often involves close partnership and engagement with stakeholders in the local healthcare system (e.g., policy makers, service organizations, civil society), direct engagement with patients during clinical training, and the provision of care during residency training. These global healthcare mobilities are, in part, a result of radical innovations in communication and transportation technologies, such as affordable air travel (Parry, Greenhough, Brown, & Dyck, 2015). By framing offshore medical schools as a global healthcare mobility, equity considerations are brought forward and questions are raised around who benefits, and who can access this form of international migration for medical education.

1.1.3. Social Accountability Model of Medical Education

In addition to access to health services, equity is operationalized in this thesis through the lens of social accountability in medical education. The social accountability paradigm underscores medical schools’ responsibility for the health and well-being of society and emphasizes collaboration within and outside the health sector. The World Health Organization proposes that social accountability for medical schools be defined as “the obligation to direct their education, research, and service activities towards addressing the priority health concerns of the community, region, and/or nation they have a mandate to serve” and that accountability exists “independently of whether a

school acknowledges it and addresses it” (Boelen & Heck, 1995, p. 3). Thus, this seminal definition of social accountability, which has been widely adopted in the Canadian context by Health Canada (2001) and the Global Consensus for Social Accountability of Medical Schools (2010), focuses on three principles of medical education: to train medical students, conduct research, and provide health services, within a defined geographic territory.

Social accountability in the three principles of medical education present numerous, intersecting opportunities to promote equity. With regard to education, equity begins with admissions, which should recruit and support a diversity of students that reflect disadvantaged and underrepresented groups (Global Consensus for Social Accountability of Medical Schools, 2010; Pong, 2009). According to this model, medical schools should also select students who are likely to succeed and practice medicine in a way that will advance a school’s social accountability mandate (Bandiera, et al., 2015; Ventres & Dharamsi, 2015). Beyond admissions, socially accountable curricula should emphasize content and problems that are relevant to the population served by the medical school (Lindgren & Karle, 2011). In other words, medical school curricula should be adapted to best prepare graduates for the current and prospective needs of the society in which they will practice (Gibbs, 2011; Pong, 2009). Context-specific curricula promotes equity by acknowledging the unique needs of specific communities and regions and by preparing physicians to address these needs.

Research is a second component to social accountability, which promotes equity by identifying marginalized or underserved populations and drawing attention to health disparities (Boelen & Heck, 1995; Global Consensus for Social Accountability of Medical Schools, 2010). Through participatory and community-based methods, some research can also offer opportunities for community engagement (Ventres & Dharamsi, 2015). With regard to curricula, maintaining robust research programs not only ensures that medical students are exposed to research activities and the scientific approach to enquiry, but such programs also contribute to curricula that are relevant to the populations they serve (Lindgren & Karle, 2011). Research also has important implications for patient care, as “solutions to clinical problems come from new ideas, and we get new ideas only by having a strong research community, aware of the problems” (Miller, 2002, p. 353). In this way, research brings in new ideas and reverses outdated concepts, which translates to better quality care for patients.

Finally, the provision of health services is the final component of the social accountability model of medical education, which contributes to equity by providing services to underserved and marginalized populations. Furthermore, exposing medical students to these populations “not only increases sensitivity to these groups and their special needs, but it may stimulate career choices favouring care to these populations” (Boelen & Heck, 1995, p. 8). Part of this commitment includes meaningful collaboration between medical schools and the local health sector and community partners to deliver a comprehensive set a health services, relevant to the needs of the community (Global Consensus for Social Accountability of Medical Schools, 2010; Lindgren & Karle, 2011).

This model of social accountability is highly compatible with a health geography framework, not only because of its prioritizing of equity, but also because it is dependent on place. Indeed, medical schools are accountable to the societies that they serve, understood as a population within a given geographic area (Global Consensus for Social Accountability of Medical Schools, 2010). This mandate of medical schools to serve the needs of society is grounded in both ethical and financial obligation (Cohen, 1999). On the one hand, a well-known aspect of the Hippocratic Oath is the ethical responsibility of the medical profession to serve the needs of patients and the community at large. On the other hand, many medical schools receive public funding, or other indirect subsidizes or public support (Cohen, 1999). This thesis implicitly and explicitly considers how principles of social accountability are reflected in the offshore medical school model, which is, by definition, for-profit, and geographically dislocated from the communities these schools appear to serve.

1.2. Canadians Studying Medicine Abroad

Traveling abroad for medical training is not new. Before the formalization of medical education in Canada, wealthy colonists even travelled to Europe and the United Kingdom (UK) for training (Rothstein, 1987; Hodges, 2005). Today, Canadians study medicine abroad in greater numbers, albeit limited to those with the will and resources to do so (Curtis & Dube, 2015). Canadians who study medicine abroad (CSAs) are Canadian citizens or permanent residents who pursue medical education outside of Canada or the US. Many CSAs complete post-secondary education in Canada prior to medical school abroad, which differentiates CSAs from immigrant international medical graduates (IMGs) who usually complete all education abroad before becoming Canadian

citizens or permanent residents (Canadian Resident Matching Service, 2010). No differentiation is made between CSAs and other IMGs during the licensure processes or when applying for postgraduate residency training (Halperin & Goldberg, 2016; Barer, Evans, & Hedden, 2014).

The number of CSAs has grown exponentially in recent decades. In 2010, the Canadian Resident Matching Service (CaRMS) estimated that 3,500 Canadians were studying medicine abroad, doubling since 2006 (Canadian Resident Matching Service, 2010). Recent CaRMS data presented by Banner and Bowmer (2014) show the number of CSAs participating in the residency match increased steadily, from 377 new and returning CSA applicants in 2010 to 911 new and returning CSA applicants in 2014. This exponential growth is not reflected in the number of new and returning immigrant IMG applicants over the same period. In this respect, not only the number but also the proportion of CSAs compared to immigrant IMGs participating in the Canadian residency match has grown (Banner & Bowmer, 2014; Curtis & Dube, 2015; Barer, Evans, & Hedden, 2014). While Canadians study medicine abroad for a multitude of reasons, such as seeking an international experience or having family ties, it is believed that most CSAs do so because of competitive admissions at Canadian medical schools (Walsh, et al., 2011; Canadian Resident Matching Service, 2010; Watts, Davies, & Metcalfe, 2011). The large majority of CSAs intend to return home to practice medicine in Canada (Niethammer, Gouda, & Moylett, 2016; Barer, Evans, & Hedden, 2014), though ultimately the ability to do so is limited by several barriers discussed below.

International medical graduates, including CSAs, play a large and important role in Canada's physician workforce. Recent estimates suggest IMGs represent roughly 25% of practicing physicians in Canada (Canadian Post-M.D. Education Registry, 2012; Mullan, 2005; Walsh, et al., 2011). However, this varies considerably between provinces. For example, IMGs comprise up to 55% of Saskatchewan's provincial physician supply. Most IMGs enter practice in Canada through postgraduate residency training, often in family medicine (Triscott, et al., 2016; van Zanten & Boulet, 2013; Curtis & Dube, 2015), although completing recognized training and certification outside Canada (i.e., postgraduate training where standards for accreditation of postgraduate medical training are judged comparable) is an alternative pathway to practice (College of Family Physicians of Canada, n.d.). For example, in 2011, most IMGs in Canada were completing residencies in the field of family medicine, followed by internal medicine, and

psychiatry (Canadian Post-M.D. Education Registry, 2012). Furthermore, Curtis & Dube (2015) found that CSAs were considerably more likely to be training in family medicine compared to Canadian medical school graduates and immigrant IMGs. While this data is presented nationally, postgraduate residency placements are administered provincially and each province has unique distributions of IMGs. While provinces have increased the number of postgraduate residency positions in recent years (Watts, Davies, & Metcalfe, 2011), many IMGs still face difficulties accessing residency placements in Canada.

The primary barrier to practice faced by IMGs, including CSAs, is access to postgraduate residency training in Canada (Curtis & Dube, 2015; Barer, Evans, & Hedden, 2014). Indeed, CSAs compete for postgraduate residency placement alongside immigrant IMGs, and there are far more applicants than positions (Niethammer, Gouda, & Moylett, 2016). It has also been reported that recent changes requiring CSAs to write Canadian licensing exams earlier in their penultimate year of school results in lower test scores and disadvantages CSAs relative to immigrant IMGs (Niethammer, Gouda, & Moylett, 2016; Obara, 2012). Despite these barriers, CSAs appear to be more successful than immigrant IMGs in matching for residency placements in Canada (Walsh, et al., 2011). For example, in 2014, 31.5% of CSAs matched for residency compared to 11.5% of immigrant IMGs (Banner & Bowmer, 2014). This disparity could be related to additional immigration, cultural, or language barriers experienced by IMGs interested in practicing in Canada (Curtis & Dube, 2015; Banner & Bowmer, 2014; Hall, et al., 2004; Szafran, Crutcher, & Banner, 2005). Further, there is concern that any actual preference towards CSAs could ultimately displace immigrant IMGs in the workforce (Walsh, et al., 2011).

1.3. Offshore Medical Schools

Offshoring is a phenomenon tied to the policies and technologies of globalization and capitalism's transnational search for investment, which has dramatically reoriented the organization of the economy at an international scale (Urry, 2014). In the mid-twentieth century, offshoring was limited primarily to manufacturing activities, relocating labour-intensive processes overseas to take advantage of cost-savings and global labour arbitrage (Stringfellow, Teagarden, & Nie, 2008; Peck, 2017). In essence, offshoring is defined as "the relocation of business processes...to lower-cost locations outside national borders" (Erber & Sayed-Ahmed, 2005, p. 100). Offshoring often

operates alongside outsourcing, which refers to the sub-contracting of business activity to an external firm, which may occur offshore. Recently, offshoring and outsourcing has expanded to the service sector, including the medical field (Stringfellow, Teagarden, & Nie, 2008; Watcher, 2006).

The motivations behind medical-related offshoring are principally related to cost-minimizing and circumvention. For example, firms may offshore and outsource labour intensive medical transcription services (Kshetri & Dholakia, 2011) or offshore clinical pharmaceutical trials to take advantage of global differences in standards of research practice (Garrafa, Solbakk, Vidal, & Lorenzo, 2010). Consumers are motivated to participate in offshoring activities for similar reasons; for example, to take advantage of cost-savings for services offered abroad, or to circumvent domestic prohibitions or scarcity, which includes 'circumvention tourism' (the practice of going abroad for surgeries that are illegal or restricted at home - see, Cohen, 2012). This thesis examines medical education as an offshoring practice in the Caribbean, drawing attention to the forces of profit-maximizing and circumvention that drive this growing industry.

Offshore medical schools are private, for-profit institutions located in the Caribbean that overwhelmingly attract and enroll international students, including students from the US and Canada as well as students from the Global South looking to ultimately practice medicine in the US and Canada (Eckhart L. N., 2010). Almost all graduates of these schools leave the Caribbean to practice medicine and many intend to return or migrate to North America (Ceaser, 2005; Shomaker, 2010). Most graduates write US and/or Canadian licensing exams and many offshore programs even offer an additional semester to prepare students to take these exams. Catering to an international student body and preparing students to practice in the US and Canada are some of the characteristics that differentiate offshore medical schools from regional medical schools in the Caribbean, such as the University of the West Indies. Despite this unique model of education, the significant growth of the offshore medical school industry shows that this model is clearly very profitable and appealing for many producers (host countries, educational institutions, instructors) and consumers (medical students).

Growth in the offshore medical school industry is reflected in both the number of schools operating in the Caribbean region and students enrolled (Borgos, 2013). In 2017, the World Directory of Medical Schools (World Directory)—a joint initiative of the

World Federation of Medical Education (WFME) and the Foundation for Advancement of International Medical Education Research (FAIMER)—lists 49 medical schools currently operating in the Caribbean that fit the definition of offshore: private, for-profit English-instructional medical schools that enroll primarily international students who intend to leave the Caribbean region to practice medicine. Of these 49 schools, 22 (48%) were opened in 2007 or later, or in the past 10 years. The proliferation of this industry has also occurred alongside dramatic increases in the number of students enrolled in offshore medical schools. For example, one study showed that of the total number of US citizens who studied medicine abroad and applied for licensure in the US between 1992-2006, nearly half attended one of three Caribbean offshore medical schools (Boulet, et al., 2009). In Canada, of the 911 CSAs participating in the 2014 CaRMS match, 477 (52%) graduated from schools in the Central America/Caribbean region (Banner & Bowmer, 2014). The Caribbean now attract more US and Canadian medical students than any other world region.

Despite substantial growth in the offshore medical school industry, concerns over quality of education have been raised, particularly among newly established programs. Indeed, stark differences exist between offshore medical schools with regard to the size of student body, facilities, and reputation, making this industry considerably heterogeneous (Shomaker, 2010). For example, while the World Directory lists 49 offshore medical schools, only seven have received (voluntary) accreditation or provisional accreditation from the Caribbean Accreditation Authority for Education in Medicine and other Health Professionals (CAAM-HP) (CAAM-HP, 2016). As a result, many offshore medical schools are subject to much less stringent oversight than those in the US or Canada, despite the intent of many graduates to practice in the US. In other words: “A business license might be all that is required to open an offshore medical school, compared to the highly regulated financial and academic governance for a new medical school in the US” (Babcock, Babcock, & Schwartz, 2013, p. 90). Concerns over quality of education also include other practices, such as admission standards (e.g., not requiring MCAT) (Ceaser, 2005; Halperin & Goldberg, 2016); available facilities (Shomaker, 2010; Babcock, Babcock, & Schwartz, 2013); and lack of research programs (Eckhert, 2010; Ceaser, 2005; Halperin & Goldberg, 2016). These concerns extend to clinical rotations, which are outsourced offshore to the US (Balon & Morreale, 2016; Eckhert, 2010).

Offshore medical school curriculum is divided between multiple campuses. Students initially spend two years learning basic sciences at an institution in the Caribbean, followed by two years of clinical clerkships, usually in US hospitals, arranged for by offshore medical schools. In this way, Caribbean offshore medical schools further participate in offshore medical outsourcing by outsourcing clinical clerkships to US hospitals. In this case, offshore outsourcing is done to circumvent the absence of clinical training capacity in the Caribbean. It is worth noting that outsourcing clinical clerkships has generated considerable debate among medical educators in the US, some critiquing the practice as contributing to the commodification of clinical clerkships, which has put pressure on US medical schools to also pay for clinical positions (Halperin & Goldberg, 2016). Furthermore, the influx of Caribbean-trained students has also contributed to the growing scarcity of clinical clerkships in the US specifically, which promotes overcrowding (i.e., the number of trainees at existing clerkships has increased significantly) or relying on less favourable clinical opportunities (e.g., students placed in private physician offices) (Halperin & Goldberg, 2016; Balon & Morreale, 2016). Conversely, others view the commodification of clinical clerkships as advancing accountability as doing so reflects the true cost of clinical education (Burdick, van Zanten, & Boulet, 2016). Furthermore, revenues that hospitals receive through selling clinical clerkships go towards capital investments and resident and faculty education (Flaherty, 2016). Notwithstanding, clinical clerkships represent one domain where offshore medical schools are in growing competition, not only against US medical schools, but other Caribbean offshore medical schools as well.

1.4. Research Objectives

My overarching research objective is to draw from these literatures to conceptualize Canadians studying abroad at Caribbean offshore medical schools as an emerging global healthcare mobility. In doing so, I prioritize health equity considerations in destination and origin countries, mobilized through frameworks considering access to health systems and social accountability in medical education. As a qualitative researcher, I am interested in highlighting perceptions, feelings, and meanings informing narratives regarding this offshoring practice, and the flows of international students that attend them. Given the little empirical research on the topic, especially using qualitative

methods or in the Canadian context, this thesis has four exploratory objectives, accomplished in the chapters noted:

- Determine the hallmarks of the Caribbean offshore model of medical education, and catalogue the institutions (e.g., medical schools, accreditation bodies, governmental regulators, and non-governmental services) relevant to facilitating/restricting the movement of Canadian trainees across borders to access medical education in the Caribbean (Chapters 3, 5, 7)
- Identify narratives and perceptions related to offshore medical schools held by stakeholders (e.g., schools, students, public, media, medical educators) and interpret them through the lenses of access, mobility, and social accountability (Chapters 3, 5, 7)
- Conceptualize the equity impacts of Canadians studying medicine abroad in Caribbean offshore medical schools on the healthcare and medical education systems of both origin and destination countries (Chapters 3, 7)
- Make recommendations for future research directions and identify remaining knowledge gaps (Chapters 3, 5, 7, 8)

1.5. Thesis Outline

This thesis is organized into three empirical chapters (Chapters 3, 5, and 7), structured as scholarly journal articles. Chapter 3 has been accepted for publication in *BMC Medical Education*. Chapter 5 is in preparation for submission to *BMC Medical Education*, and Chapter 7 is in preparation for submission to *Academic Medicine*. Drawing from three datasets—offshore medical school websites, Canadian print media, and qualitative interviews—this research is exploratory by design, and demarcates a broad field of perceptions, attitudes, and beliefs held by different stakeholders about these institutions and the students they graduate. Preceding the three empirical chapters are bridging chapters (Chapters 2, 4, 6), which briefly introduce the Chapter and relate the research back to the broader themes of this thesis. Because these chapters are written to journal-specific conventions, norms, and requirements, I also use bridging chapters to provide more context about research methods, the involvement of co-authors, and other supplemental information that may be outside the scope of the journal. The following is an outline of the three empirical chapters in this thesis.

Chapter 3 uses qualitative thematic analysis of Caribbean offshore medical school websites to uncover cross-cutting themes pertaining to how they are advertised to potential students, which we characterize as push–pull factors. These themes reveal

how these schools market themselves to prospective students, and how offshore medical schools perceive of their relationship to the Caribbean and health systems abroad. Chapter 5 uses qualitative media analysis to characterize how Caribbean offshore medical schools and the CSAs they graduate are framed in the Canadian print media. Chapter 7 draws from qualitative interviews conducted with Canadian medical education stakeholders, such as high-level administrators at Canadian medical schools and representatives from governmental and non-governmental organizations. It examines how these stakeholders perceive offshore medical schools and the bases for these perceptions. Chapter 8 brings together cross-cutting themes and relates this research back to concepts in health geography, global healthcare mobility, and the social accountability model of medical education.

1.6. Importance

The fields of geography and medical education recognize the importance of interdisciplinary approaches—by incorporating novel perspectives and raising new questions—and understand the value of qualitative research—in uncovering meaning and perceptions behind events and behaviours (Albert, Hodges, & Regehr, 2007; Irby, 1990; Kwan & Schwanen, 2016). Further, it is widely known that qualitative methods are an effective and logical starting point for hypothesis generating and exploratory research (Stebbins, 2001). My thesis uses interdisciplinary frameworks and exploratory qualitative methods to advance our understanding of this growing global offshoring phenomenon. Given the relative lack of empirical research considering offshore medical schools and the IMGs they graduate, particularly in the Canadian context, this research is significant by uncovering perceptions held by three stakeholder groups.

This thesis uses qualitative texts representing the perspectives of three stakeholder groups—offshore medical schools, Canadian media, and the Canadian medical education and physician workforce—each with unique significance and justification for inclusion. First, including the perspectives of offshore medical schools, gained through qualitative thematic analysis of associated institutional websites, was important not only for advancing our understanding of this phenomenon, but for discerning how offshore medical schools perceive—or perform—their role within the health systems in the Caribbean and abroad, and to whom they serve. Information gleaned from my analysis (Chapter 3) will thus be relevant and important to prospective students,

private and public stakeholders in the Caribbean, and anyone interested in learning more about this offshoring industry. Second, narratives and perceptions identified in the Canadian print media, gained through qualitative media analysis, are important because of the known influence of media towards shaping public opinion, influencing policy, and perpetuating power dynamics (Kline, 2006). Furthermore, by including opinion pieces and editorials, the perspectives of CSAs are highlighted as well. As a result, this analysis (Chapter 5) is important and relevant to those interested in gauging public opinion or potential political directions, related to CSAs and offshore medical schools. Third, qualitative, semi-structured interviews reveal perceptions held by Canadian medical school administrators and stakeholders whose professional positions entail addressing the medical education system or physician workforce. The perceptions of this 'elite' group of academics, professionals, and policy influencers are significant because they represent the hegemonic beliefs and attitudes towards offshore medical schools and the CSAs that attend them. In turn, these hegemonic perceptions normalize and legitimize certain ideas and values, and play an important part in shaping the discourse. This analysis (Chapter 7) is relevant and important to students considering studying medicine abroad, policy makers, and other medical educators and professionals.

1.7. Positionality

The social proximity between researchers and their participants is sometimes expressed as 'insiderness' and 'outsiderness,' describing the presence (or absence) of shared attributes as being a member (or non-member) of the same social group (Moore, 2012; Ritchie, et al., 2009). Positionality locates the researcher as 'inside' or 'outside' their research subject and provides additional context into how the social location of the researcher and participants may have influenced the research process. Here I describe my position as researcher and relationships to participants, and reflect on how this positioning may have impacted my thesis.

I identify as distinctly outside the social groups of my participants. As a junior scholar in a discipline outside of medicine, I found that my participants (Chapter 7) were much more senior, had considerably more professional experience, and were more knowledgeable about the Canadian medical education and healthcare systems. The power differential between myself—a first-year Masters student—and my participants—senior academics and professionals—was palpable, and influenced my research. For

example, I felt uneasy pushing back or redirecting my participants when they changed the topic or wanted to speak to a different issue.

In addition to ‘insiderness’ and ‘outsiderness’ and its effect on data collection, positionality also encourages researchers to reflection on how their perspectives and experiences may influence data interpretation. For example, I am Canadian and my attention is drawn to other Canadians and the forces that impact them. As a result, my interpretation of the data (e.g., content offshore medical school website) could unintentionally over-emphasize the importance of Canada or Canadians. Similarly, I am particularly interested in Caribbean offshore medical schools, and my interpretation may focus on these institutions and make less salient other medical schools outside the Caribbean represented in the data. Finally, as a critical health geographer, I am explicitly interested in identifying and critiquing (in)equities, which remains central to my approach to research.

This research was funded in part by a Master’s fellowship from the Canadian Institutes of Health Research (CIHR) and a CIHR Michael Smith Foreign Study Supplement. This study supplement gave me the opportunity to conduct research and spend time in Barbados, where I visited an offshore medical school, met with local stakeholders (e.g., politicians, medical educators), and gained a sense of what studying abroad in the Caribbean could entail. I also informally attended an information session for an offshore medical school, which was held in Vancouver, Canada, which gave me an idea of how these schools promote themselves to prospective students. These experiences have all shaped how I view this offshoring phenomenon.

1.8. Summary

My thesis uses qualitative methods to advance our empirical-based understanding of Caribbean offshore medical schools and the Canadians who attend them. Using textual data, including content from offshore medical school websites, Canadian print media, and qualitative semi-structured interviews, my thesis identifies the narratives and perceptions held by important stakeholder groups involved in facilitating and/or restricting the movement of Canadians to study medicine in the Caribbean. Drawing from literatures in health geography, mobility, and social accountability, I position this offshoring industry as a global healthcare mobility, prioritizing impacts on

health equity in both origin and destination countries. I believe my thesis is relevant given the incredible growth of this offshoring industry and the number of Canadians who choose to study medicine abroad, and significant given its focus on exposing perceptions held by stakeholders in positions to shape public opinion and influence policy related to these global flows of trainees in Canada.

Chapter 2.

Context to Content Analysis and Methodology

Chapter 3 is an exploratory thematic analysis of offshore medical school websites conducted in March 2015, which launched my thesis research. The analysis specifically focuses on the push and pull factors that are advertised to prospective students of Caribbean offshore medical schools. It is currently in press in the peer-reviewed journal *BMC Medical Education*. I chose to target a journal related to medical education research—as opposed to mobility studies or health geography—because I am interested in engaging with the stakeholders identified in this thesis, such as medical students and medical educators, both in and outside the Caribbean. Furthermore, I strongly believe in the accessibility and high visibility associated with open access publishing. This article was co-authored with Dr. Valorie Crooks (SFU), Ms. Carla Sampson (University of Central Florida), and Dr. Jeremy Snyder (SFU). I was responsible for data collection and drafting of the manuscript. Dr. Crooks assisted with drafting the manuscript. All authors met to discuss findings and analytical directions, and reviewed the manuscript.

I chose to focus this analysis on institutional websites because they are publicly accessible and are a primary source of information for students considering attending offshore medical schools. A significant limitation to this analysis is that we failed to identify all offshore medical schools operating in the Caribbean at the time of data collection, as reported in the World Directory of Medical Schools. In hindsight, we should have used this database to establish inclusion criteria for this analysis, however we were unaware of the existence of this database at the time of data collection. That said, we identified schools using reasonable methods that I expect prospective students or stakeholders would likely use. For example, we used Google search terms such as “Caribbean,” “medical school,” and the names of Caribbean countries. We also searched popular websites, such as Wikipedia, for existing databases of Caribbean offshore medical schools. Finally, this list was reviewed by all authors, and additional medical schools were added. Through these measures, we captured the great majority of schools that were in operation at the time, including the largest schools.

In drawing from this dataset, I was able to gain an understanding of this global healthcare mobility from the perspective of offshore medical schools. In turn, this analysis reveals some perceptions held by this primary stakeholder group: 1) which student populations are considered most valuable; 2) what motivates students to leave their country of origins; and 3) how offshore medical schools compete for students against medical schools in the Caribbean and elsewhere.

Themes raised in this analysis relate strongly to the three conceptual frameworks—access to health services, global healthcare mobility, and social accountability—that ground my thesis. Most directly, this analysis clearly shows that almost all offshore medical schools target their operations at American and Canadian students, or at least perceive their graduates to seek licensure in these countries. This was reflected in numerous ways, but most overtly in the prolific references to the United States Medical Licensing Examination (USMLE) and statements made about graduates' experience practicing in the United States (US) and Canada. This has direct implications for social accountability to the Caribbean region, and raises questions about who benefits from this offshoring practice. Themes related to access to healthcare were also identified, particularly relating to website content referencing competitive admissions for medical schools in the US and Canada. By referencing low admission acceptance rates, offshore medical schools are positioning themselves as increasing access to medical training, the importance of which was further emphasized by references physician shortages in the US and Canada.

Chapter 3.

***“Location is surprisingly a lot more important than you think”*: A critical thematic analysis of push and pull factor messaging used on Caribbean offshore medical school websites²**

3.1. Abstract

Offshore medical schools are for-profit, private institutions located in the Caribbean that provide undergraduate medical education to international students, often from the United States (US) and Canada, who intend to return or migrate to North America for residency training and ultimately to practice. Americans and Canadians who study medicine outside the US or Canada are considered international medical graduates (IMGs) and may encounter challenges returning home. We conducted a qualitative thematic analysis to discern the dominant messages found on offshore medical school websites, which we describe as push and pull factors.

We found two push and four pull factors present across most offshore medical school websites. Push factors included the low acceptance rates of domestic medical schools and the shortage of physicians in the US and Canada. Pull factors included the financial benefits of attending an offshore medical school; geographic location and training environment; quality and effectiveness of education; and the potential to practice medicine in Canada and the US. This analysis contributes to understanding factors informing students' decisions to attend Caribbean offshore medical schools. Importantly, push and pull factors do not mention the barriers faced by offshore medical school graduates in finding residency placements and to practice. It is clear from push and pull factors that offshore medical schools heavily focus messaging towards students from the US and Canada, which raises questions about who benefits from this offshoring practice.

² Co-authored with Crooks, V.A., Sampson, C.J., Snyder, J.

3.2. Introduction

The demand for international medical education has grown considerably in recent decades, mirrored by a significant number of medical schools opening in China, India, and the Caribbean (Boulet, Bede, McKinley, & Norcini, 2007). In addition to global population and economic growth (Boulet, Bede, McKinley, & Norcini, 2007), the global demand for medical education is driven in part by the United States (US) and Canada, particularly for medical schools in the Caribbean. While there are many reasons to study medicine abroad (e.g., family connections, international experience, cultural reasons), most Americans and Canadians do so because of competitive admissions at domestic universities (Watts, Davies, & Metcalfe, 2011). Indeed, there are far fewer domestic medical school seats than there are applicants (Razack, Hodges, Steinert, & Maguire, 2015; Association of Faculties of Medicine of Canada, 2015). In these cases, students determined to practice medicine must decide whether to study abroad or apply again, sometimes several times over (Canadian Resident Matching Service, 2010). It is estimated that thousands of Americans and Canadians are currently studying medicine abroad, many enrolled in Caribbean offshore medical schools (Canadian Resident Matching Service, 2010; Johnson, Hagopian, Veninga, & Hart, 2006).

Offshore medical schools are for-profit, private institutions located in the Caribbean region, purpose-built to provide undergraduate medical education to international students (Eckhert, 2010; Ceaser, 2005). We use the term Caribbean to signal the broader political region, including full and associate member states of the Caribbean Community (CARICOM) and Aruba, Curacao, Saba, and St. Maarten. Offshore medical students typically spend two years studying basic sciences in the Caribbean, followed by two years studying clinical sciences in the US. Although offshore medical schools accept students from around the world, many heavily recruit US and Canadian students, both passively through their websites and actively through on-site information seminars (American University of the Caribbean School of Medicine, 2016; St. George's University, 2016). True to the offshore business model, Caribbean offshore medical schools operate outside of US or Canadian medical training and licensing requirements, although benefit from their proximity in terms of ease of travel and commonality of the English language (Babcock, Babcock, & Schwartz, 2013).

The growth in the number of medical schools across the globe has created a highly competitive international market where schools compete for students and faculty, while students determine what is feasible and favourable, considering a school's location, cost, and reputation. However, we believe the notable success of the Caribbean offshore medical school model of attracting students and maintaining industry growth is worth closer attention. This analysis seeks to gain a greater understanding of the discourses used to attract prospective students on offshore medical school websites, revealing how these institutions compete for students both within and outside the Caribbean region. In other words, this analysis not only reveals the online messaging that encourages students to attend a given offshore medical school, but also the narratives used to promote the Caribbean offshore model of education broadly.

While students surely review an array of information about medical schools from a variety of sources (e.g., information sessions, word of mouth, social media), the profound significance that the Internet and institutional websites play for post-secondary institutions is well-documented (Adelman, 2006; Kittle & Ciba, 2001). It is also clear that the appearance and language of institutional post-secondary website websites play an important role in building identity and reputation (Saichaie, 2011). As such, we view websites as a primary platform for offshore medical schools to communicate directly with, and compete for, prospective students. Thus, information and marketing on websites offer valuable new insight into our understanding of this offshoring industry.

3.3. Methods

In February and March 2015, we compiled a comprehensive directory of English-language Caribbean offshore medical school websites, all of which are listed in Table B1 (Appendix B). We took a triangulated approach to identifying offshore medical schools as we were aware that many existing listings were partial. We first identified a detailed listing of offshore medical schools on Wikipedia (Wikipedia, 2017), which was compiled using multiple sources. We used this list as a starting point and contrasted it against an additional list available on the student-run medical school information website StudentDoc (StudentDoc, n.d.) in order to locate schools not on the initial list. We next searched online for individual medical schools or directories for every Caribbean country, searching for information on each country separately, seeking to identify any offshore medical schools not captured by these two other lists. Following this, the third

author (CS) then reviewed the list and contrasted it against one she had compiled separately over time through reviewing media and web sources to identify schools still not included, which resulted in the addition of one more school to the list. Our final step was to access the websites of every school on the master list we had gathered to remove any that were no longer in operation.

Thirty-eight websites for unique English-language Caribbean offshore medical schools were identified and ultimately included in this analysis. An acknowledged limitation is that despite our triangulated approach at identifying offshore medical schools, this analysis still did not capture all offshore medical schools that fit our inclusion criteria at the time of data collection. This was verified by comparing our list to the World Directory of Medical Schools, which lists 11 additional medical schools not included in this analysis. Finally, we did not attempt to verify whether the claims made on offshore medical school websites were accurate. Table B1 (Appendix B) includes a list and summary of the offshore medical school websites that were included in this analysis, including name of institution, web address, location, and year founded. All data in this table was populated from information found on the offshore medical school websites.

After each informally visiting the websites of numerous offshore medical schools, JM and VAC met and identified topics (i.e., what data to collect), created variables (i.e., how to collect data), and built a master spreadsheet (i.e., where to record data). We used both binary (yes/no) and qualitative variables. Binary variables determined the presence of a topic on a website (e.g., Did the website claim that students could write US and/or Canadian licensing exams?). Qualitative variables were used to record examples, description, and context (e.g., How did websites discuss postgraduate residency placements? Where is the head office?). Following this, JM visited every page of each institutional website to extract data, using 'sitemaps' as a guide when available. We did not include blogs or social media in this analysis. After completing data extraction, the full spreadsheet was reviewed by JM and VAC to confirm the presence of discrete topics. Next, all authors independently reviewed the spreadsheet and, considering the topics, came to consensus on six overarching themes that best summarize the factors articulated by these websites to compel students to consider training abroad and why they should select a particular school.

3.4. Results

In reviewing the 38 offshore medical school websites (see Table 1B, Appendix B), we identified several cross-cutting themes common across the dataset, which we characterize as ‘push’ and ‘pull’ factors. The push-pull framework is an established lens used to articulate factors that inform decision-making and motivate actors to migrate (Parkins, 2010), including the international migration of students (Li & Bray, 2007) and healthcare professionals (Walton-Roberts, 2015). Here ‘push’ factors describe the motivations associated with the origin country, while pull factors are those which attract and are associated with the destination country (Prayag & Ryan, 2011). Both push and pull factors typically operate simultaneously in informing a person’s decision to permanently or temporarily relocate, in addition to facilitating forces such as the absence of legal constraints (Kline, 2003). We believe these two push and four pull factors represent the central messages used by offshore medical schools to market themselves to prospective students. While the two push factors we identified were common on many of the websites we reviewed, the four pull factors were more prolific and were also often raised. In the remainder of this section we explore the scope and meaning of each of the push and pull factors identified in the thematic review, providing illustrative quotes to contextualize the findings. Although we present these factors separately below, they are inherently related and mutually enforcing.

3.4.1. Push Factor: Shortages of Physicians in the US and Canada

Several offshore medical school websites featured information regarding physician shortages in the US and Canada. It was implied or explicitly stated that students should study medicine in the Caribbean to help address these physician shortages at home:

With the serious threat posed by a looming physician...shortage, [this offshore medical school’s] mission of preparing highly trained doctors...has never been so critical...there will be a shortage of approximately 55,000 physicians in the US by 2020 (Medical school in Dominica)

This excerpt explicitly positions itself as alleviating physician shortages in the US, while also implicitly highlighting the origin and expected destination of their medical school

graduates. Some websites had dedicated webpages to physician shortages outside the Caribbean, promoting the offshore model as a solution:

Caribbean medical school graduates help fill the void of much needed primary care physicians... The realities of the physician shortage may seem bleak but by enrolling in a Caribbean medical school, you can be a part of the solution (Medical school in Antigua)

Claims regarding physician shortage outside the Caribbean may appear multiple times on a given website, including in mission statements, frequently asked questions, or dedicated webpages. References to physician shortage was generally focused on the US and Canada, although there was at least one mention of “global shortages.” There was no mention of physician shortages in the Caribbean region, where offshore schools are located.

3.4.2. Push Factor: Medical Schools in the US and Canada are Competitive

For American and Canadian students, the competitive admissions for medical schools is an acknowledged motivation for studying medicine abroad (Canadian Resident Matching Service, 2010). This was mirrored on offshore medical school websites:

There has been no significant increase in the intake of U.S. medical schools in decades, while the number of qualified candidates increases every year. As a result, some students with the potential to become excellent physicians miss out on a medical education (Medical school in St. Vincent & Anguilla)

Statistics show that...85 out of 100 Canadian Pre-Med students do not gain admission into medical school in Canada. Many students give up on their dream of becoming a physician. But you don't have to! There is a completely reasonable and proven alternative to American and Canadian medical schools (Medical school in St. Maarten)

While highlighting the competitiveness of medical schools in the US and Canada, these excerpts present the offshore medical school model as an alternative for students who might otherwise “*give up on their dream*” of becoming a physician.

References to competitive admissions in the US and Canada were sometimes presented alongside claims of physician shortages, revealing a relationship between these two push factors:

Canada faces a growing shortage of physicians...[yet] more than 30,000 Canadian [medical school] applications are denied annually. [This offshore medical school] offers an alternative path to becoming a MD in Canada (Medical school in St. Kitts and Nevis)

Like descriptions of physician shortages, offshore medical school websites did not make comparison to medical school admissions outside the US or Canada.

3.4.3. Pull Factor: Financial Benefits

We identified three themes asserted on institutional websites related to the financial benefits of attending an offshore medical school: (1) competitive or low reported tuition rates; (2) the potential for access to government-backed student loans from country of origin; and (3) the possibility of private financing options. These themes did not all simultaneously apply to each school. For example, the offshore medical schools whose US students were eligible for federal funding did not report the lowest tuition.

Tuition fees varied considerably between schools, ranging from under US\$50,000 to over US\$250,000 for a four-year degree. These fees generally did not include textbooks, school supplies, or cost of living. Reported tuition for clinical training, usually located in the US, was notably higher. Schools with low tuition emphasized the cost-savings compared to medical school in the US and/or Canada and sometimes relative to other offshore medical schools in the region:

Tuition fees are substantially lower than medical schools in Canada, [US] and other Caribbean medical schools (School in Curacao)

Low tuition rates mean that you will not be burdened with large loans after graduation (School in St. Kitts and Nevis)

Some websites also noted the potential for American and Canadian students to access federal or provincially-sponsored student loans, respectively:

The US Department of Education has certified [this offshore medical school] as an eligible institution for Title IV Federal Direct Student Loans. Students who qualify are eligible to receive US student loans in order to attend the university. [This offshore medical school] is one of only four medical schools located in the Caribbean to earn this distinction (School in Dominica)

At the time the data were collected, only students enrolled in one of four offshore medical schools—St. George's University, Ross University, American University of the

Caribbean, and Saba—could access US Title IV student aid, a significant source of federal student funding (through loans, grants and work-study programs) (United States Department of Education, 2015). These four schools also reported some of the highest tuition fees. Many of the websites reviewed included content aimed at Canadians who are eligible for provincially-backed student loans, and emphasized that these students can bring their loans abroad:

Canadian students who are interested in medical school may be able to receive Canadian Government financial support when attending (Medical school in St. Lucia)

Student aid is provincially administered in Canada, and each province maintains lists of eligible international schools. Most provinces and territories extend student aid eligibility beyond the four institutions identified by US Federal student aid. Because of this, many offshore medical schools directly targeted Canadian students.

In addition to student aid, offshore medical school websites also highlighted private financing options as a financial benefit of attend an offshore medical school. These options included the scholarships and/or awards and assistance in securing private loans:

Students are eligible to apply for private educational loans from various private loan lenders. [Students] are eligible to apply on their own as long as they are credit worthy (no co-signer). It is highly recommended to apply with a co-signer. [This offshore medical school's] administration is committed to provide all the possible help from our end to facilitate the process for you (Medical school in Jamaica)

Other forms of assistance noted on websites included payment schemes, such as paying tuition in installments.

3.4.4. Pull Factor: Geographic Location and Environment

Exotic images and descriptions that highlighted the natural beauty of the Caribbean were prolific on offshore medical school websites. Many websites had photo galleries with images of beaches and sunsets, alongside classrooms and laboratories, to convey a 'Caribbean aesthetic.' Accompanying text encouraged potential applicants to consider the promise of studying in a tropical setting:

The campus provides both a beautiful and comfortable environment for new experiences (Medical school in Curacao)

Some websites drew specific connections between the beauty and geography of the Caribbean as it relates to studying medicine:

Location is surprisingly a lot more important than you think. When you're studying medicine in Connecticut, you're probably not thinking about brutal winters or having to dig your car out of the snow. At a Caribbean medical school, you'll be studying in a tropical paradise and that means no worries about crazy weather fluctuations. Seriously, winter is the worst (Medical school in Antigua)

Many websites also included information on tourism activities and other amenities on the island:

Saba is a beautiful country—its nickname is the “Unspoiled Queen”—and is also extremely safe. Discriminating tourists have long sought out Saba for its diving, its restaurants, charming inns and stunning Caribbean vistas. Because Saba is small and off the well-worn tourist track, it lacks many of the distractions that can interfere with studying. Yet there is plenty to do, from hiking to deep sea diving. (Medical school in Saba)

This excerpt draws a relationship between the Caribbean region and the realities of studying medicine, hinting at the risks of being distracted by tourism amenities offered in Caribbean locations. Indeed, tourism represents a significant portion of Caribbean regional economy (14% total contribution to GDP) (World Travel & Tourism Council, 2015). However, this website describes its Caribbean location as having the right balance between seclusion (fewer distractions) and “*plenty to do.*”

The proximity of many offshore medical schools to the US and Canada was also featured as a geographic benefit of attending medical school in the Caribbean. Some websites even had information on common flight plans:

Grand Cayman is not only a beautiful location...it is also one of the safest... Grand Cayman is less than an hour's flight from Miami, and also has direct flights from Atlanta, Chicago, Dallas, Charlotte, Houston, New York, Tampa, Toronto, and other international locations (Medical school in Grand Cayman)

These geographic pull factors present Caribbean offshore medical schools as a desirable and convenient location to study medicine, particularly for US and Canadian students.

3.4.5. Pull Factor: Training Quality and Effectiveness

We identified three distinct factors regarding the quality and effectiveness of medical training: (1) first-time pass rates for medical licensing exams; (2) faculty trained in the US and Canada; and (3) the use of small class sizes. Offshore medical school websites made most extensive reference to the United States Medical Licensing Examination (USMLE) which medical graduates—including those who trained internationally—are required to pass to practice in the US. In Canada, international medical graduates must pass the Medical Council of Canada Evaluating Examination (MCCEE), although reference to this exam appeared much less frequently than to the USMLE. Offshore websites typically referred to both graduates' first-time pass rate and their curriculum that will prepare students to pass the exam. Some offshore medical school websites put pass rates in context:

[This offshore medical school's] 2012 performance on USMLE Step 1 was an improvement on the outstanding results from 2011, a year in which [the school's] first-time test takers achieved a pass rate of 95 percent overall and 96 percent among those from the US and Canada. By contrast, the first-time taker pass rate for students at US and Canadian schools was 94 percent in 2011 (Medical school in Grenada)

Reported first-time USMLE pass rates varied greatly between schools. The lowest reported first-time pass rate for the USMLE Step 1 was 70%. Many offshore medical schools also claimed to have a curriculum designed to prepare students for the USMLE exam:

Program is designed for USMLE preparation and success. The curriculum is designed to incorporate USMLE style format questions in curriculum quizzes and exams (Medical school in Curacao)

One website stood out by referencing the fact that many offshore medical schools' curriculum is based on the USMLE, while asserting its quality of education by rejecting that model:

Students typically score high on the USMLE, although we do not 'teach for the test' (Medical school in Aruba)

References to medical faculty trained in the US or Canada were common on offshore medical school websites. We interpreted these references as way offshore medical schools signaled quality and effectiveness of training on their websites:

Faculty is highly credentialed and recruited primarily from the United States. They love to teach and dedicate virtually 100% of their time to students (Medical school in St. Kitts and Nevis)

You'll benefit from a 70-person Foundations of Medicine faculty with impeccable credentials as physicians, teachers and researchers...Our distinguished faculty members, who have been selected from across the United States and the world, are dedicated to exactly one thing: the teaching and mentoring of medical school students (Medical school in Dominica)

Despite these faculty claims, websites rarely distinguished between the diverse roles and positions held by these faculty (e.g., board members, teaching faculty, clinical faculty abroad, guest lecturers, visiting scholars, former instructors, laboratory supervisors, etc.), nor did the websites note the start and end dates of their affiliations.

Finally, reference to small class sizes was brought forward by some offshore medical schools as contributing to quality of education, supported by the benefits of attending a small institution. Offshore schools that claimed to have small class sizes sometimes made comparisons to other institutions with larger student bodies, both inside and outside the Caribbean:

With a small class size we are able to provide the much needed one on one attention to all the students. This makes for a more effective in-class, experience---you won't find the anonymous, big lecture hall experience at [this school] the way you do at many schools (Medical school in St. Vincent and the Grenadines)

Small class sizes allow professors and staff...to provide you with a personalized educational experience as you work within your program (Medical school in Aruba)

Emphasis on a 'personalized' education (in contrast to anonymity) show how some schools frame low enrollment as positively contributing to quality of education. It also highlights the considerable range in size of these institutions, with some of the largest Caribbean offshore medical schools graduating hundreds of students each year (Halperin & Goldberg, 2016).

3.4.6. Pull Factor: Potential to Practice in Home Country

Graduates' ability to practice medicine Canada or the US is central to success of the offshore medical school model. This was reflected in the prolific reference to practicing in the US and Canada across all offshore medical school websites. This was

often done through personal profiles (i.e., testimonials) or general statements made about former graduate:

Our graduates have earned residencies and/or permanent licensure in more than 40 states in the U.S., Canada, and numerous other countries. Our students achieve exceptional scholastic success, with U.S. licensing examination pass rates comparable to U.S. schools and well above the average of other non-U.S. schools (Cayman Islands)

This excerpt is representative of the types of statements made across offshore medical school websites that reference graduates practicing in the US or Canada. Such statements are noticeably absent from the sites of schools too young to have had a graduating class, in which case these schools focused on the potential for future graduates to ultimately practice abroad.

Several states in the US, including California, have state-specific licensing requirements that do not include all offshore medical schools. Consequently, the websites of offshore medical schools whose graduates *cannot* practice in all 50 states typically discussed practicing in the US broadly:

In general all our graduates are eligible for licensure in the United States. Each State in the four territories that make up the United States have individual State licensing requirements (Medical school in Belize)

However, offshore medical schools whose graduates are eligible to practice in all 50 states make explicitly clear on their website:

Some states, such as New York, California, and Florida, require approval for international medical schools. [This school] is proud to be approved in each of these states (University in St. Maarten)

No reference was made to the ability of graduates to practice in countries outside the US or Canada, including the Caribbean.

3.5. Discussion

This analysis identified and organized the dominant messages and themes that were present on the websites of Caribbean offshore medical schools as ‘push’ and ‘pull’ factors. These factors described the motivational forces behind students’ decisions to study medicine in the Caribbean, from the perspective of the offshore medical schools. As such, this analysis reveals how offshore medical schools perceive: a) the composition

and origin of their targeted student body; b) the reasons motivating students to leave their country of origin; and c) the forces attracting students to study medicine in the Caribbean. This analysis also highlighted how offshore medical schools compete with each other, and with medical schools internationally, for prospective students. In the remainder of this section we examine themes that crosscut the push and pull factors identified and relate them to broader medical offshoring practices. In doing so, we identify critical contextual information that is missing from how these ‘push’ and ‘pull’ factors are discussed on offshore medical school websites. Finally, we propose important directions for future research on this topic.

3.5.1. Focus US and Canadian Students

First, it is clear from our findings that the push and pull factors presented on offshore medical school websites were oriented towards US and Canadian students. In fact, very few references were made to other origin countries of students that are known to attend Caribbean offshore medical schools, such as India or Nigeria (Deccan Chronicle, 2014). Furthermore, even though these schools do attract small numbers of students from the Caribbean region (Barbados Nation News, 2015), little effort was made to ‘speak to’ this local market on institutional websites. In other words, offshore medical school websites clearly perceive American and Canadian students as those who are highly desirable and thus worthy of being marketed to via their websites. This was also reflected in the ubiquitous mentions of the USMLE across all websites, which is exclusively used in the US. Further, references to US and Canadian trained faculty, using the word ‘American’ or ‘America’ in the title (see Table B1, Appendix B), or comparing offshore medical school tuition fees to US tuition, are other ways in which offshore medical school websites signaled to potential applicants that they are marketed towards students from these countries.

Because little research exists on offshore medical schools, it is difficult to say why offshore medical schools heavily target students from the US and Canada. It may be due to high demand for medical education among residents of these countries. Focus on attracting international students may also be a reflection of socioeconomic conditions in the Caribbean region, as high tuition fees and limited post-secondary opportunities can act as a barrier for local Caribbean students to attend medical school. It is also possible that the presence of students from the Global North is thought to lend credibility to these

schools, as is the case with other globalizing phenomena such as in the practice of international physician voluntourism. International physician voluntourism often involves medical students from the Global North travelling to low-resource settings via 'medical missions' for clinical and research electives (Asgary & Junck, 2011). Research has documented how patients receiving care from medical mission associate the US and Canada with quality of care, sometimes undermining care provided from domestic service providers (Provenzano, et al., 2010). Perhaps offshore medical schools similarly view students from these same Global North nations in high regard, and thus as a focus of online marketing. In other words, by marketing towards US and Canadian students, regardless of whether these students ultimately enroll, offshore medical school websites may signal a level of quality by association.

3.5.2. Drew Connections to Health Systems Elsewhere

By heavily targeting US and Canadian students, including positioning themselves as a solution to perceived physician shortages in these countries and training students to do write (and pass) the USMLE, offshore medical school websites suggest an association with these countries' health systems despite whether any formal relationship exists. In this way, we believe offshore medical schools work to actively situate themselves as an extension of the US and Canadian medical education and healthcare systems, rather than those of Caribbean the nations in which they are located. This intentional disassociation from the Caribbean region where they are located sets the offshore medical school model apart from other international medical schools, such as those in Ireland, Australia, and Eastern Europe (Sullivan, 2000; Canadian Resident Matching Service, 2010). Further, medical schools conventionally exist to train physicians to serve the local population (Association of Faculties of Medicine of Canada, 2015). Some have characterized this as central to social accountability, understood as the social contract that medical schools enter with the societies which they are located. In this exchange, medical schools receive dollars and subsidies (both direct and indirect) in exchange for research and services that benefit public health (McCurdy, et al., 1997). Meanwhile, it is clear from the marketing on offshore medical school websites that physicians are being trained to treat patients elsewhere. This sets offshore medical schools apart from other regional Caribbean medical schools, such as the University of the West Indies, that exist to train physicians to serve the needs of regional Caribbean

populations (Dass, 2015). In contrast, offshore medical schools exist to serve patient populations outside the Caribbean region, and our analysis shows that they are framing themselves as being a continuous part of a medical training and ultimately healthcare system in operation elsewhere.

Offshore medical schools share many similarities with other health-related offshoring practices operating in the Caribbean, such as medical tourism (i.e., the private movement of patients across international borders to purchase medical care). Specifically, both health care-related offshoring practices raise questions about if and how local populations benefit from the presence of these industries in the region (Adams, Snyder, Crooks, & Hoffman, 2014). With regard to the parallel offshoring sector of medical tourism, much research has suggested that this practice may encourage health workers in destination countries to cater to foreign patients instead of serving a local population, thereby exacerbating local health system inequities (Johnston, Crooks, Snyder, & Kingsbury, 2010; Pocock & Phua, 2011). Similarly, while it is known that many Caribbean countries are facing physician shortages (Lofters, 2012; Pan American Health Organization, 2008), the push and pull factors we identified on offshore medical school websites did not reflect that. In other words, it does not appear offshore medical schools are involved in addressing this local health human resources challenge by training physicians for regional practice in the Caribbean. Beyond not contributing to the supply of health workers in the Caribbean, these schools may exacerbate shortages when local physicians or educators take up positions as lecturers at these schools or local students choose to enroll in order to ultimately establish a career in the US or elsewhere.

3.5.3. Competition Between Schools

This analysis also provides insight into how offshore medical schools perceive themselves to be in competition with other medical schools inside the Caribbean region and elsewhere. These schools explicitly compete for students on a variety of points that are embedded in the push and pull factors they promote. One clearly marketed point of competition is tuition fees, which are sometimes directly compared against competing institutions. For example: *“tuition fees are substantially lower than medical schools in Canada, [US] and other Caribbean medical schools.”* It is established that tuition costs are critical to decision-making among university students (Himler, 1998; Mazzarol &

Soutar, 2002; Wilkins, Shams, & Huisman, 2013). This would be particularly germane to students that are ineligible for student aid.

Discussions of first-time USMLE pass rates on offshore medical school websites reveal that this is another source of competition for students between schools, and especially those training students wanting to practice in the US. As noted in the findings, many schools with strong pass rates make so clear on their websites as a way to pull students to their campuses. However, what this rate does not show is that some Caribbean offshore medical schools reportedly allow only a subset of their students (i.e., high-achieving students) to write the USMLE Step 1 exam in order to maintain high first-time pass rates (Halperin & Goldberg, 2016). Such a practice demonstrates the importance of this comparative metric among offshore medical schools in attracting future students. Coincidentally, USMLE pass-rate, as a metric, has been criticized elsewhere for its inability to predict residents' performance outside the exam (Bell, Kanellitsas, & Shaffer, 2002; Brothers & Wetherholt, 2007).

3.5.4. What's Not Being Discussed

The push-pull framework we use in this analysis is useful because it broadly encourages consideration of social, economic, and political conditions in both origin and destination countries, which help to understand why someone, including a student seeking medical training abroad, may choose to migrate (Arah, Ogbu, & Okeke, 2008; Kline, 2003). Notably, the push-pull framework requires that, in addition to will, facilitating forces, such as the absence of legal constraints, must be in operation in order to enable movement (Kline, 2003). Here lies a notable omission from offshore medical school websites: while no legal constraints impeded the migration of US and Canadian students to the Caribbean to study medicine, there are actually many *de facto* constraints that may impact their attempts to return home to practice. Unsurprisingly, mentions of these constraints are largely unaccounted for on the websites these schools use to market their training to international students.

The principal constraint for US and Canadian students who study abroad is that they return as international medical graduates, and must compete for necessary residency placements alongside other international medical graduates (Babcock, Babcock, & Schwartz, 2013; Curtis & Dube, 2015). Currently, there are far fewer

available postgraduate residency placements than there are applicants in both countries, especially in Canada (Barer, Evans, & Hedden, 2014). For example, the Canadian Resident Matching Service (CaRMS) reports that in 2013, only 499 international medical graduates (IMGs) matched to residency positions in Canada, a fraction of the 2,216 IMGs that participated in the residency match (Canadian Resident Matching Service, 2013). Furthermore, 2013 was “the first year in CaRMS history in which more IMGs...participated in the match than [Canadian medical graduates]” (Canadian Resident Matching Service, 2013, p. 2). While it is unclear what proportion of these international medical graduates were Canadian or US citizens, it follows that as studying medicine abroad becomes increasingly popular the competition for these limited residency placements will also increase. As such, many offshore medical school graduates will be unmatched with residency placements and will not fulfill the promises laid out by these schools’ marketing messages, which suggest they can practice in their home countries and assist with lessening health worker shortages. These potentially unrealized expectations are particularly concerning given the high cost of attending many of these offshore institutions. It is known that Canadians studying medicine abroad have a higher median debt compared to graduates from Canadian medical schools (Watts, Davies, & Metcalfe, 2011; Curtis & Dube, 2015). This represents a significant financial hardship without (potentially) strong job prospects.

3.5.5. Future Research Directions

This analysis uses a push-pull framework to contribute new understanding into how offshore medical schools market themselves to prospective medical students. We consider institutional websites to be a valuable source for understanding how offshore medical schools operate because post-secondary websites are known to greatly influence students’ choice of any particular institution (Kittle & Ciba, 2001), are a primary means to communicate with prospective students directly, and are readily accessible. There is ample opportunity for meaningful future research on this important topic, including using other sources of data. We outline some of these opportunities in this subsection.

An important question for future research related to the current analysis is: what push and pull factors are brought forward by other marketing mediums, such as promotional posters or flyers, social media, and in-person information sessions? If

meaningful differences are found in the push and pull factors used across different types of marketing materials, then these differences warrant examination and explanation. Drawing connections between the multiple marketing mediums used by offshore medical schools can assist in uncovering the complex networks at work to recruit potential students. Another available source of data about offshore medical schools are the readily accessible online blogs written by past, current, and future students. These blogs may reveal new insights into the push and pull factors identified here, including how offshore medical school students navigate the realities of these factors (e.g., studying in a tourist setting; coping with the practicalities of receiving student loans from home that can be used abroad; engaging in discussion with other students about the hopes and realities of being able to practice at home upon graduation). This analysis brings up wider, pressing research questions that relate to issues we have touched upon in the discussion. We believe that important questions include: what economic- and health-related impacts (both positive and negative) do offshore medical schools have on their Caribbean host countries; what role should students' home countries play in tracking students attending offshore medical schools, and in providing them with financial support, and/or with reserving residency placements specifically for them; and what impacts do increasing numbers of offshore medical students actually have on the US and Canadian physician workforce, including addressing physician maldistribution.

Chapter 4.

Further Reflections on Media Analysis, Framing, and Power Relations

In Chapter 3, I conducted a qualitative thematic analysis of content on offshore medical school websites. In doing so, I gained the perspectives of offshore medical schools, which revealed how these institutions perceive of the offshore model of education, their students, and their role within health systems in the Caribbean and elsewhere. In Chapter 5 I revisit how offshore medical schools are characterized, but in this case, I look at how this is done by others. I use qualitative media analysis to uncover how offshore medical schools and the Canadians they train are *framed* in the Canadian print media. By capturing the media's perspective, I also gain an understanding of how the public may perceive of these schools and the students they train, as the media can legitimize and perpetuate certain perspectives or framings in public discourse (Kline, 2006). This analysis was conducted in October 2015, and co-authored with Dr. Valorie Crooks (SFU) and Dr. Jeremy Snyder (SFU). I was responsible for data collection and drafting of the manuscript. Dr. Crooks assisted with drafting of the manuscript, and all authors confirmed themes and reviewed the manuscript.

I chose to conduct a media analysis because print media is a publicly accessible dataset, it informs public opinion, and can influence public policy (Kline, 2006; Rachul & Caulfield, 2015). In the context of an emerging global healthcare mobility—where there is often limited empirical data or research—media analysis has been proven to be an important step towards identifying and addressing knowledge gaps (Pylypa, 2013; Crooks, et al., 2013). We chose to limit our analysis to print media, as a result, media accounts only posted online are not captured here. Ultimately, we included 44 print news article in this analysis, which is relatively fewer than media analysis considering other global healthcare mobilities (Pylypa, 2013; Crooks, et al., 2013), although I believe is an interesting finding in itself. Why is there not more coverage of this topic in the print media, given that thousands of Canadians are estimated to be studying medicine abroad, and many in for-profit Caribbean medical schools? In part, this analysis reveals that public engagement in this topic—outside of medical circles—appears to be relatively low, and that dialogue is driven by few authors with specific perspectives. Furthermore,

media framing of an issue may emphasize aspects that resonate with readers and attract attention, such as emphasizing Canadian physician shortages. Regardless of how—and to what degree—the print media portrays this topic, critically examining the frames that are used is important for understanding how the public—including students, parents, policy-makers—may conceptualize of the offshore medical school model, studying medicine abroad, or practicing in Canada as an international medical graduate.

The findings of this analysis are closely related to the research objectives and conceptual frameworks put forward in my thesis. For example, Chapter 5 reflects principles of the new mobilities paradigm (Chapter 1), which emphasizes the importance of place and power relations in regulating flows, rather than suggesting that mobility operates in a ‘smooth world’ (Sheller & Urry, 2006; Miller & Ponto, 2016). This analysis accounts for power relations by using a ‘framing’ approach to media analysis, which goes beyond simply documenting the information that is reported to expose the ideologies and power relations informing how a topic is presented (Entman, 1993). In other words, by using this approach I consider whose voices are being centred in discourses surrounding offshore medical schools in the Canadian media. My findings show that the perspectives of Canadian students—expressed primarily through opinion and editorial pieces written by students, profiles of students, and student sources in reported pieces—are most prominent in news articles, which has implications for how these schools are framed. Dominant frames in the media portrayed the *status quo* as unfair to Canadian students, including policies that treat Canadians “*like any other international medical graduate*” (Blackwell, 2007) and bureaucratic “*foot dragging*” that keeps Canadians “*locked out*” (Lakoff, 2004) of schools at home and force them abroad. These frames locate power within the government, which was also portrayed as the primary actor regulating flows of mobility. Further, media it is suggested that the government both encourages mobility (e.g., “*forced to move away from home*”) by underfunding undergraduate medical education in Canada, while simultaneously restricting mobility with policies that treat Canadians who have studied abroad as international medical graduates.

On the other hand, this analysis reveals little discussion in the Canadian print media regarding the actual role of offshore medical schools in training Canadian students, or on students’ decision-making, as having an impact on flows of medical trainees. For example, the number of Canadians studying medicine abroad has

increased significantly in the past decade (Canadian Resident Matching Service, 2010), which has undoubtedly increased domestic competition for postgraduate residency positions available for international medical graduates. Furthermore, offshore medical schools' active marketing and student recruitment efforts that emphasize the ability to practice in Canada (as shown in Chapter 3)—in addition to large enrollments despite limited (required) postgraduate opportunities—are both undoubtedly significant in shaping and regulating flows in this global healthcare mobility.

Chapter 5.

“We have been forced to move away from home”: Print news coverage of Canadians studying abroad at Caribbean offshore medical schools³

5.1. Abstract

Canadian international medical graduates are individuals who have graduated from a medical school outside of Canada or the United States. A growing number of Canadian international medical graduates have sought medical education abroad at Caribbean offshore medical schools. Often, these students attempt to return to Canada for residency opportunities and ultimately to practice. We conducted a qualitative media analysis to discern the dominant themes and ideologies that frame discussion of offshore medical schools, and the Canadian medical students they graduate, in the Canadian print news. We carried out structured searches on Canadian Newsstand Database for print media related to offshore medical schools. Canadian news articles overwhelmingly use two frames to characterize offshore medical schools and the Canadian international medical graduates they train: (1) increased opportunity for medical education for Canadians; and (2) frustration returning to Canada to practice despite domestic physician shortages. This analysis demonstrates that frames deployed by the Canadian print media to discuss offshore medical schools and the Canadians they train define two problems: (1) highly qualified Canadians are unable to access medical school in Canada; and (2) some Canadian international medical graduates are unable to return to Canada to practice medicine. Caribbean offshore medical schools are identified as a solution to the first problem while playing a central role in creating the second problem. These frames do not acknowledge that medical school admissions are a primary means to control the make-up of the Canadian physician workforce and they do not address the nature of Canadian physician shortages.

³ Co-authored with Crooks, VA., Synder, J.

5.2. Introduction

International medical graduates (IMGs) represent a significant portion of the physician workforce, accounting for roughly 25% of practicing physicians in Canada (Monavvari, Peters, & Feldman, 2015; Dove, 2006; Wong & Lohfeld, 2008). The Medical Council of Canada defines an IMG as anyone who has graduated from a medical school outside of Canada or the United States (US), including Canadians who study medicine abroad (CSAs) (Medical Council of Canada, 2015). The majority of IMGs enter practice in Canada through postgraduate residency training, although most provinces have quotas on the number of placements that are ultimately available to IMGs (Barer, Evans, & Hedden, 2014; Canadian Resident Matching Service, 2017). As such, obtaining a residency position can be highly competitive, for both CSAs and IMGs (Monavvari, Peters, & Feldman, 2015; Wong & Lohfeld, 2008; Barer, Evans, & Hedden, 2014; Niethammer, Gouda, & Moylett, 2016).

Competition for residency placements in Canada is heightened by the growing number of CSAs in recent decades, which has more than doubled since 2006 and was estimated to be 3,500 in 2010 (Canadian Resident Matching Service, 2010). Canadians study abroad for many reasons, although is primarily associated with the competitiveness of domestic medical school admissions (Watts, Davies, & Metcalfe, 2011). There are far fewer seats in Canadian medical schools than there are applicants (Razack, Hodges, Steinert, & Maguire, 2015; Young, et al., 2012). For example, in 2014/15 the Association of Faculties of Medicine of Canada reported over 36,000 applications for approximately 2,700 places (Association of Faculties of Medicine of Canada, 2016). Canadian medical school enrollment corresponds with attitudes towards physician shortage (or surplus) in Canada, and has fluctuated over time. Current medical school enrollment reflects significant increases between 1997-2007, from approximately 1,700 seats to 2,500 (Dumont, Zurn, Church, & Le Thi, 2008). Nonetheless, the demand for medical education far exceeds domestic supply.

Responding to this demand are medical schools in the United Kingdom, Australia, and Eastern Europe which target and attract Canadian students (Canadian Resident Matching Service, 2010). Increasingly, the Caribbean region has emerged as a destination for Canadian medical students, building an offshore business model on training international students. Offshore medical schools are private, for-profit

enterprises that are purpose-built to provide undergraduate medical education to international students, including from the US and Canada (Eckhert, 2010; Babcock, Babcock, & Schwartz, 2013; Maharaj & Paul, 2012; Halperin & Goldberg, 2016). The World Directory lists 49 medical schools currently operating in the Caribbean, of which 22 (48%) opened as of 2007 (World Directory of Medical Schools, 2017). The proliferation of this offshore industry has resulted in the Caribbean region having the highest density of medical schools per capita compared to anywhere else in the world (Boulet, Bede, McKinley, & Norcini, 2007).

In addition to serving primarily international student populations, the Caribbean offshore medical school model is unique because students complete two years of basic sciences in the Caribbean followed by two years of clinical sciences abroad, often in the US (Halperin & Goldberg, 2016; Eckhert, 2010). Clinical rotations are arranged for abroad because the Caribbean region does not have sufficient postgraduate training capacity (Monavvari, Peters, & Feldman, 2015; Canadian Resident Matching Service, 2010; Halperin & Goldberg, 2016). As a result, offshore medical schools routinely purchase clinical placements in the US, dealing directly with hospitals. For example, St. George's University School of Medicine (SGU), located in the Caribbean country of Grenada, signed an \$100 million agreement with New York City's Health and Hospital Corporation to purchase slots for up to 600 SGU students (Halperin & Goldberg, 2016; Hartocollis, 2008).

Given the fact that offshore medical school graduates must leave the Caribbean practice, and that most CSAs intend on returning to Canada (Niethammer, Gouda, & Moylett, 2016), offshore medical schools have been framed as means of addressing physician shortages in graduates' home countries (van Zanten & Boulet, 2013; Babcock, Babcock, & Schwartz, 2013; Shomaker, 2010). The implication is that offshore medical schools can be a source of physicians to lessen shortages left unaddressed by domestic medical schools. That said, the extent to which CSAs (and other IMGs) represent a sustainable solution to addressing physician shortages in Canada is contested, particularly with physician recruitment and retention in underserved rural and remote areas (Dove, 2006; Barer, Evans, & Hedden, 2014; Chan, 2002). The nature of physician shortages in Canada, and the role that IMGs and CSAs play in addressing these shortages, are of great debate in the academic and media literature.

Health worker shortages and IMGs have received substantial attention in the media, and effort has been made by researchers to uncover the primary narratives behind the headlines (Pylypa, 2013; Ho et al., 2015; Han, 2010). Uncovering media portrayals is important because the media's coverage of a topic is known to perpetuate certain perspectives and power-dynamics (Kline, 2006), and has influence on public and policy-makers (Rachul & Caulfield, 2015). For example, in the Canadian context, Pylypa (2013) showed a notable absence of discussion related to equity impacts of global health worker migration on origin countries discussed in the media when compared to the academic literature. Given the established relationship between offshore medical schools, CSAs, and physician shortages in Canada, in the current article we ask: How are Caribbean offshore medical schools and the CSAs they train framed in the Canadian print media? Our analysis shows that two broad frames capture much of the public dialogue about Caribbean offshore medical schools as carried by Canadians print news. In the discussion, we point out that these frames are maintained and perpetuated by neoliberal ideologies that privilege citizenship and entitlement.

5.3. Methods

To our knowledge, this paper constitutes the first media analysis examining offshore medical schools and/or the CSAs they train. Understanding media representations is important because citizen awareness is largely developed through media accounts, which can have direct policy implications (Rachul & Caulfield, 2015; Pylypa, 2013; Kehn & Kroll, 2011). Moreover, news media have shown to provide legitimacy to certain opinions and perspectives (Kamenova, Ravitsky, McMullin, & Caulfield, 2016). Finally, and importantly in the context of the current under-researched topic, examining publicly available datasets, such as print media, is an empirical first step towards identifying, and in some cases addressing, knowledge gaps. Despite their growing popularity, there is still very little empirical examination of offshore medical schools.

In the current analysis, we take into account how themes are 'framed' in and by the media. A framing approach uncovers how some aspects of a phenomenon are focused upon and made salient, while others are ignored (Entman, 1993). Thus, to understand how a topic is framed is to go beyond considering the information that is reported, but is to also attempt to expose the ideologies and power relations informing

how it is presented. As Entman explains: “To frame is to select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described” (Entman, 1993, p. 52). Framing generally has four functions: (1) *define problems*—determine what an actor is doing with which costs and benefits; (2) *diagnose causes*—identify the forces creating the problem; (3) *offer judgements*—evaluate actors and their impacts; and (4) *offer solutions*—recommend treatments for the problems and predict their outcomes (Entman, 1993).

In October 2015, we conducted structured searches on Canadian Newsstand Database for print media related to Caribbean offshore medical schools. Initially, two Boolean searches were conducted using the search terms: (1) “offshore medical schools” (n=8); (2) “Caribbean” AND “medical schools” (n=405). Consistent with recognized approaches to media analysis, we first reviewed titles of the search results for relevance and duplicates (Pylypa, 2013). After this step, we identified 44 unique articles whose content met our inclusion criteria: (1) was published in English; (2) was carried in a Canadian print media source; and (3) dealt with the topic of offshore medical schools and/or returning CSAs. Importantly, included articles did not have to exclusively focus on offshore medical schools and/or their returning CSAs and could instead engage in discussing them in the context of wider issues.

After identifying articles suitable for inclusion, we gained access to their full texts. Print media included in our analysis consisted of: news articles (n=37), editorial and opinion pieces (n=3), and letters to the editor (n=4). By including editorial, opinion pieces, and letters to the editors in our sample, we could capture CSAs perspectives in their own words. Full texts of the 44 articles were imported into NVivo qualitative data management software to organize thematic coding. The thematic codes were broad in order to reflect the themes informing the frames identified in the dataset. The articles were thematically coded by the first author, with input coming from the second author and confirmation from the third author.

5.4. Results

News articles identified by our structured search revealed a wide range of issues related to offshore medical schools and the CSAs they train. Many articles focused on

intended students' decisions to go abroad and their experiences attempting to return to Canada to practice medicine. We found that articles were published consistently (but not in a high volume) since 1983, with a median date of 2006, and a mode of 2013. The most recent article was published in 2015. Table 2B (Appendix B) lists the authors, dates, title, and sources of these articles. We identified two frames that print media overwhelmingly used to describe offshore medical schools and the CSAs they train. We include direct quotations from the articles throughout in order to allow the original sources to 'speak' to the issues at hand.

5.4.1. Increased Opportunity for Medical Education Due to Unreasonable Competition in Canada

Many of the articles framed students' decisions to attend Caribbean offshore medical schools around the competitiveness of Canadian medical school admissions. Specifically, many CSAs were perceived as having been "pushed abroad" by the competitiveness of domestic universities. Similarly, Canadian medical schools were seen as unable (or unwilling) meet the growing demand for undergraduate medical education. As a result, Caribbean offshore medical schools were portrayed as increasing opportunities to study medicine. Several articles pointed out that some students who met all admissions criteria, and were thus seemingly qualified, were nonetheless rejected from domestic medical programs:

At present, public medical schools in Canada have neither the money nor the room to accept all qualified candidates... [and can] admit no more than one-quarter of the students who apply (The Gazette, 2008).

Offshore medical schools were thus framed offering spaces for *qualified* Canadians who were denied entry into domestic programs, in the face of growing demand and intense competition.

Some media sources used a narrative approach to highlight the factors that pushed Canadians to study abroad. Narratives typically revealed glowing personal profiles of students who were rejected from Canadian medical schools. For example:

[P]erfectly bilingual, [the student] had an A+ average coming out of her B.Sc...where she spent her free time shadowing a family physician and volunteering at camps and after-school programs for underprivileged kids... 'It [admission to a Canadian medical school] seemed totally unattainable,' [the student] says. (Brook, 2006)

[S]he [the student] had applied to numerous schools in Canada but wasn't accepted due to limited spots, despite her high scores on her Medical College Admission Test and volunteer work at BC Children's Hospital. (The News, 2011)

These excerpts frame Canadian students' attendance at offshore medical schools as a logical choice in the face of unrelenting competition at domestic schools, even for those who scored high on admission tests, achieved excellent grades, and had undertaken related volunteer work. This constrained decision-making was exemplified by the frustrated remarks of one student: "*I mean, what else could I have done?*" (Brook, 2006).

5.4.2. Frustration Returning to Canada in the Face of Physician Shortages

The second frame that Canadian print media used in reference to offshore medical schools and the CSAs they train pertained to graduates' frustration in attempting to return to Canada for postgraduate residency training, and ultimately to practice. This was attributed to limited postgraduate residency opportunities in Canada, which are closely matched to the number of domestic medical school seats (Niethammer, Gouda, & Moylett, 2016; Barer, Evans, & Hedden, 2014). Many articles paralleled difficulties returning to Canada against claims of domestic physician shortages. These articles suggested that CSAs who have graduated from offshore medical schools and other international institutions are ideally placed to address shortages, but that their opportunities to do so are limited by practical barriers. As expressed in these opinion and editorial pieces written by an offshore medical school graduates:

We have been forced to move away from home, due to the limited spaces available in medical schools in Canada. Ontario [a Canadian province] has long been complaining about its physician shortage, but why not give us internationally trained graduates a chance to contribute to our ailing health care system? (Noorjahan, 2007)

On completion of our medical training, many of us are very interested in returning to our home and native land, but we are being locked out by the bureaucracy...It is becoming apparent that the federal and provincial governments, through combined foot-dragging, are not doing enough to help Canadians build a stronger health-care system. If they were truly serious about the problem, they would put their money where there mouths are, instead of in their pockets (Lakoff, 2004).

By positioning difficulty accessing residency placements in Canada alongside narratives of physician shortages, many articles framed this situation as a lost opportunity for the Canadian healthcare system.

Bureaucratic barriers were commonly reported as perceived obstacles to CSAs practicing in Canada upon graduation:

I met a large number of outstanding Canadian students at St. Georges [in Grenada] who would love to come back and practice in this country but find it difficult because of regulatory hurdles placed in their path. In light of our current shortage of physicians this is most unfortunate. (Schwarcz, 2009)

Students...want to fill that physician gap, but our government-controlled medical schools have no room for them. (Williamson, 2005)

Canadian schools are not producing enough doctors at present. Off-shore schools...are producing high-quality physicians at low costs to the Canadian system. But, bureaucracy is keeping Canada from tapping this source to its full potential. (Harrison, 2011)

This framing implicitly positions offshore medical schools as quality medical training institutions and their “*outstanding*” graduates as ready and able to practice in Canada. Such positioning heightens frustration around reported bureaucratic barriers that prevent CSAs from helping to reduce Canada’s perceived physician shortage.

Policy decisions to give CSAs equal, rather than preferred, access to Canadian residency placements as other IMGs upon graduation and return to Canada were critiqued by some media sources. These policies were often presented as unfair:

Even though they are citizens of this country [Canada], they would be classified as international medical graduates and would have to get in line with foreign-trained doctors to re-enter the Canadian system. (Williamson, 2005)

Getting a chance to practise back home can be the biggest challenge of the ex-patriots’ global educations. They are treated like any other international medical graduates who apply for the residency training positions required before they can practise here...the majority still end up in the United States. (Blackwell, 2007)

As these articles note, many CSAs who trained at offshore medical schools ultimately end up practicing in the US despite interest in working in Canada. Articles consistently framed excellent Canadian students as being pushed abroad to offshore medical

schools due to the limited number of seats available at Canadian universities and then, upon graduation, being pushed to practice in the US because of bureaucratic decisions to treat them equal to all other IMGs in Canada.

5.5. Discussion

This analysis has identified two ways that the Canadian print media frame offshore medical schools and the CSAs they train. We contend that our focus on framing is useful as it has drawn attention to how communicated texts reveal dominant meanings in the context of this particular dialogue (Kamenova, Ravitsky, McMullin, & Caulfield, 2016). Following Entman's framing paradigm, framing has four functions: defining problems, diagnosing causes, making judgements, and suggesting solutions. In this section we first consider what is learned about the four functions of the two frames uncovered by this analysis, also summarized in Table 1. As framing accounts for how some aspects of a phenomenon are made salient while others are ignored, we also consider the ideologies and power dynamics that inform these dialogues and look to the relevant literature to identify important points left unaddressed by the Canadian print media.

Table 1 **Summary of two frames presented in Canadian print media**

	<i>Increased Opportunity for Medical Education Due to Unreasonable Competition in Canada</i>	<i>Frustration Returning to Canada in the Face of Domestic Physician Shortages</i>
Define Problem	Canadian medical schools have unreasonable admission standards for medical school	Canadian medical schools and provinces have made it too difficult to return to Canada
Diagnose Causes	There are too few medical schools in Canada	There are too few residency placements
Evaluate Effects	Students are driven abroad to find alternative medical schools	Students are forced to practice in the US or unable to practice medicine
Suggest Remedies	Canada should accept more medical students; Offshore medical education model	Canada should make it easier for graduates to return to Canada

5.5.1. Engaging the Four Functions of Framing

Dominant frames presented by the Canadian print media to discuss offshore medical schools and the CSAs they train identified two problems: (1) qualified Canadians are unable to access domestic medical schools; and (2) CSAs are unable to return to Canada to practice medicine despite a perceived shortage. Frames presented Canadian medical schools and provincial healthcare administrators as principal casual agents, suggesting that both problems are the result of their (poor) decision-making. These same frames positioned offshore medical schools as a solution to the first problem. An inadequate number of domestic medical school seats and residency placements were portrayed as primary causes, burdened by bureaucracy. As a result, students were pushed abroad—both to study, and ultimately practice, medicine, which was understood as lost potential.

References made to bureaucracy by the reviewed media sources typically served as a critique of Canadian medical schools and provincial healthcare administrators. We conceptualize bureaucracy as an administrative structure that is rational, rule-bound, hierarchical, and typical of those found in governmental and academic institutions. For example, the perceived inadequate supply of medical training capacity was understood in terms of insufficient funding, which is a bureaucratic decision. As suggested in the findings, Canadian medical schools were seen as having “*neither the money nor the room to accept all qualified candidates*” (The Gazette, 2008). This positioning implicitly suggests Canadian medical schools *should* accept all qualified candidates, but do not because of funding and administrative shortfalls. With regard to the difficulty faced by CSAs in returning to Canada to practice, bureaucracy was framed as red-tape. As expressed in the findings: “[CSAs] *find it difficult because of regulatory hurdles placed in their path*” (Schwarcz, 2009). In this way, bureaucracy was framed something to be overcome by CSAs.

Both frames understood the adverse effects of bureaucracy as lost potential for the Canadian healthcare system. First, lost potential was conceptualized as Canadian medical schools being unable to accept all qualified applicants. This has been echoed elsewhere, such as in a qualitative study led by Wong & Lohfeld (2008) that found that IMGs in Canada, including CSAs, routinely report difficulty accessing residency training, despite perceived physician shortages. Their participants characterized bureaucracy as

contributing to the problem, including the “ambiguous selection criteria and lack of feedback” (Wong & Lohfeld, 2008, p. 55). As a result, students who have the potential to make excellent physicians were denied the opportunity to train domestically and/or forced to go abroad. Second, lost potential was articulated as ‘brain drain,’ or CSAs being forced to practice medicine elsewhere, usually in the US.

5.5.2. Underlying Ideologies of the Frames

From this analysis, we contend that both these frames signal towards ideologies of neoliberalism, and power dynamics that reveal privileging of citizenship and entitlement. Neoliberalism is an established political ideology that, among other things, advocates for the retrenchment of government regulation and bureaucracy, encouraging free-markets and privatization (Harvey, 2005). With regard to the provision of health services, neoliberal ideologies increasingly cast patients as ‘clients’ and ‘customers’ (Ormond, 2011) and advocate for the privatization of health services, including post-secondary institutions (Olssen & Peters, 2005). Offshore medical schools and the CSAs they train can thus be viewed as products of neoliberalism, while also benefitting from global neoliberalism in many ways—such as via trade liberalization policies that facilitate mobility between countries as well as offshoring industries. Neoliberal ideologies also informed critiques raised by media coverage, such as that medical school seats in Canada are allocated by perceived need rather than by letting the ‘market’ decide the supply based on demand. We believe that understanding dominant media frames as being informed by neoliberal ideology helps to contextualize these narratives while situating this industry alongside other forms of international medical mobility, such as medical tourism, that are similarly thought to be perpetuated by neoliberal policies and practices (Ormond, 2011).

Frames brought forward in the media analysis also reveal instances of privilege and entitlement. For example, most articles portrayed CSAs as not only feeling entitled to access medical education, but also to holding residency placements in Canada. This entitlement is reflected in statements such as “*we were forced to move away from home*” (Noorjahan, 2007) and “*what else could I have done?*” (Brook, 2006). It is also clear that frames project a privileging of citizenship, as made clear in repeatedly expressed frustration that CSAs are treated the same as non-Canadian IMGs. For example, as one article noted “*Even though they [CSAs] are citizens of this country, they would be*

classified as international medical graduates and would have to get in line with foreign-trained doctors” (Williamson, 2005). What we cannot know from the current analysis is if notions of privilege and entitlement are common among Canadians studying at offshore medical schools and returning CSAs, or if the voices represented in the media are the most privileged and/or outspoken and thus not particularly reflective of this group as a whole.

5.5.3. Critical Points Unaddressed by the Frames

Because a framing approach to analysis requires consideration of what is ignored in a text, here we consider what was left unaddressed by the Canadian print media. First, with regard to competition in the Canadian medical school applicant pool, what is left unaddressed is that admission protocols and class sizes are not merely a reflection of available resources. In fact, the number of medical school seats have increased substantially in the last decade, over 80% over the last 13 years (Evans, 2011; Barer, Evans, & Hedden, 2014; Watts, Davies, & Metcalfe, 2011). Rather, medical school admissions are a primary means to control the size and diversity of the Canadian physician workforce (Barer, Evans, & Hedden, 2014). In this way, bureaucracy is a deliberate mechanism for health human resource planning, rather than simply a barrier to be overcome as suggested by several of the reviewed media articles.

With regard to the difficulty faced by many CSAs returning to Canada for residency and ultimately practice despite reports of physician shortages, controlling the number of post-graduate positions is an instrumental way to control the make-up of the physician workforce (Jackson, et al., 2014). Further, this framing also does not address the nature of physician shortages in Canada, which are better characterized as rural-urban physician mal-distributions (Barer & Stoddart, 1992). For example, the Canadian Institute for Health Information reported that 2015 saw the highest number of physicians ever recorded in Canada, with steady increases over the past 10 years. The increase in the physician workforce far surpassed population growth, and Canada now has a ratio of 228 physicians per 100,000 population (Canadian Institute for Health Information, 2015). Furthermore, there are concerns regarding the impact of physician oversupply on the Canadian healthcare system, particularly related to increasing healthcare expenditure due to increased billings and questions surrounding the appropriateness of additional services being provided (Evans & McGrail, 2008).

Finally, there is evidence to suggest that admitting IMGs for residencies and ultimately practice is not an effective way to address physician mal-distribution in Canada as these physicians often migrate to urban centers and not to underserved areas of the country (Audas, Ryan, & Vardy, 2009; Rourke, Incitti, Rourke, & Kennard, 2009; Stenerson, Davis, Labash, & Procyshyn, 2009; Basky, Matthew, Edwards, & Rourke, 2007). Instead, it is believed that recruiting more students from underserved areas will better aid in addressing mal-distribution, as they are more likely to return to serve these same populations (Audas, Ryan, & Vardy, 2009; Kapadia & McGarth, 2011).

5.5.4. Future Research Directions

This analysis represents a novel approach to understanding Canadian dialogue surrounding offshore medical schools and the CSAs they train. Future research questions related to the current analysis include: what frames do other stakeholder groups use when discussing offshore medical schools; and what insights can current and past Canadian offshore medical school students offer into understanding the two frames identified in this analysis? There are also broader questions to be asked, such as: what awareness do prospective offshore medical school students have of their employment opportunities upon graduation; and what role(s) should offshore medical school graduates play in addressing health worker shortages? Answering such questions will require a diversity of research designs and are best addressed through interdisciplinary approaches and engagement with diverse stakeholder groups.

5.6. Conclusion

Offshore medical schools are for-profit, private enterprises located in the Caribbean that provide undergraduate medical education for mostly international students. Many of these students seek to practice medicine in their home countries, including the US and Canada. This research has shown two ways that public discussion of offshore medical schools is framed in the Canadian print media. First, it is suggested there is unreasonable competition for Canadian medical schools, and some qualified students seeking admission are pushed abroad to offshore medical schools. Second, Canadian graduates of offshore medical schools face difficulty returning to Canada, even in the face of perceived physician shortages. Both frames identify Canadian

medical schools and provincial healthcare administrators as causal agents, burdened by bureaucracy. Both frames understand these problems to have the adverse effect of lost health worker potential for the Canadian healthcare system. Meanwhile, as pointed out in the discussion, we contend that domestic medical school seats and residency opportunities are important tools used to control the Canadian physician workforce, which was left unaddressed by these framings. Given the increasing popularity of Canadians pursuing education in Caribbean offshore medical schools, we call for more research into this area, including that which aids in further unpacking the two frames identified in the present analysis.

Chapter 6.

“These are politically charged issues”: Reflection on Interviewing Professionals

Chapter 7 presents findings from qualitative, semi-structured interviews (n=13) with stakeholders whose professional positions entail addressing the Canadian medical education system or the physician workforce. I pursued this analysis because I believe the stakeholders I interviewed are in positions to influence policy and shape hegemonic discourses on the topic of Caribbean offshore medical schools and Canadians studying medicine abroad at these offshore institutions. This paper was co-authored by Dr. Valorie Crooks (SFU), Dr. Jeremy Snyder (SFU), and Mr. John Pickering (SFU) and is in preparation for submission to the peer-reviewed journal *Academic Medicine*. I was responsible for identifying and recruiting participants, conducting and transcribing interviews, and drafting the manuscript. My co-authors assisted me with developing the interview guide (Appendix A), reviewing the data for themes, confirming the analytic interpretation, and editing the manuscript.

Data collection occurred May-July 2016, and interviews were held over the phone or over skype. In-person interviews were not feasible given the geographic distribution of this Canada-wide sample (and that some participants were also based in the United States). I consider recruitment to be a success and ultimately my sample consisted of 13 participants. Challenges to recruitment included the number of medical schools in Canada (17 in total, 14 English)—which both limited the pool of potential participants and increased the perceived risk of identification—and the sensitive or contentious nature of my research topic, which was revealed in correspondence with several potential participants. As one participant advised:

I guess I’m using my political antenna, giving you some advice, because...these are politically charged issues.

I discuss my position as ‘outsider’ in relation to my participants in Chapter 1, which I also believe impeded recruitment. For example, some (potential) participants were unsure why a geographer would be interested in this research. Recruiting participants from outside academic institutions presented different challenges. For example, despite

reassuring potential participants that I was only looking for their personal perspectives and opinions, some participants felt uncomfortable participating without explicit consent from employers.

Chapter 7.

“They don’t have the history and the stature”: Examining perceptions of Caribbean offshore medical schools held by Canadian medical education stakeholders⁴

7.1. Abstract

Offshore medical schools are for-profit, private institutions in the Caribbean that primarily serve international students, including from the United States and Canada. Students at offshore medical schools leave the Caribbean for clinical and postgraduate residency training, and generally intend to practice in their country of origin or migrate to the United States or Canada. The Caribbean offshore medical school industry has seen significant growth in recent decades, mirrored by increasing numbers of Canadians studying medicine abroad. Using qualitative semi-structured interviews, this article examines perceptions of offshore medical schools held by stakeholders whose professional position entails addressing the Canadian medical education system or physician workforce.

Thirteen semi-structured qualitative interviews with stakeholders were held in May–July 2016. Interviews were transcribed verbatim, at least two authors reviewed each transcript. We identified three cross-cutting perceptions related to Caribbean offshore medical: (a) they are at the bottom of an international hierarchy of medical schools based on perceived quality of education; (b) they are heterogeneous in quality of education and student body; and (c) they have a unique business model, characterized by profit-generating and serving international students. Based on participants’ perceptions, students interested in studying medicine abroad may wish to consider the regional hierarchy of quality discussed in the findings. While participants stressed heterogeneity between schools the tendency to discuss medical schools in regional terms risks obfuscating important differences in reputation and quality. Furthermore,

⁴ Co-authored with Crooks, V.A., Snyder, J., Pickering, J.

participants perceived the Caribbean offshore medical school model to be incompatible with social accountability in medical education.

7.2. Introduction

The Caribbean region is home to a disproportionate number of medical schools (per unit population) compared to global norms (Boulet, Bede, McKinley, & Norcini, 2007). Following a political definition of the Caribbean—full and associate member states of the Caribbean Community (CARICOM) as well as Aruba, Curacao, Saba, and St. Maarten—the World Directory of Medical Schools lists 56 medical schools operating in the region. While some medical schools serve local and regional populations (e.g., University of the West Indies), most medical schools in the Caribbean serve mostly international students. Schools in the Caribbean that do not primarily serve a regional population are commonly referred to as ‘offshore’ medical school.

Offshore medical schools are for-profit, private schools that serve international students, including from the United States (US) and Canada, who intend to return to their country of origin to practice medicine (Eckhert, 2010; Babcock, Babcock, & Schwartz, 2013). Clinical placements are arranged to take place outside the Caribbean, usually in the US, due to limited regional capacity. Offshore medical schools instruct US-based curricula and the large majority of graduates write US and/or Canadian licensing exams (Halperin & Goldberg, 2016; Monavvari, Peters, & Feldman, 2015; Eckhert, 2010; Eckhert & van Zanten, 2016). This offshore business model has seen rapid growth in recent decades. For example, 20 (36%) of the 56 medical schools currently operating in the Caribbean were opened since 2007. In turn, this industry is quickly transforming the landscape of global medical education.

The growth of the offshore medical school industry has occurred alongside an increase in the number of Canadians and US-citizens studying medicine abroad, some of whom opt to study elsewhere because of growing competition for entry into domestic medical schools and rising admission requirements (Canadian Resident Matching Service, 2010; Eckhert & van Zanten, 2016; Barer, Evans, & Hedden, 2014). Many of these students choose to enroll in offshore medical schools, which typically have three admission cycles and collectively graduate hundreds of students per year (Halperin & Goldberg, 2016). For example, the Canadian Resident Matching Service (CaRMS) has

estimated that Canadians enroll in Caribbean offshore medical schools more than anywhere else in the world (Canadian Resident Matching Service, 2010).

Despite the growing role that offshore medical schools play in training US and Canadian students, very little empirical research exists on the topic, particularly in the Canadian context. Specifically, little is known about how these offshore institutions are perceived by those in professional and decision-making positions where offshore medical school graduates intend to practice (e.g., Canada). This is significant given that most Canadians studying intend on returning to Canada to practice (Niethammer, Gouda, & Moylett, 2016), and that perceptions of their quality of education by medical school administrators and other gatekeepers in Canada and elsewhere will determine their ability to practice and succeed in these countries. Given these knowledge gaps, the current analysis seeks to understand, through qualitative semi-structured interviews, how Caribbean offshore medical schools are perceived by Canadian medical school stakeholders whose professional positions entail addressing the medical education system or physician workforce.

7.3. Methods

The goal of this study was to understand how Caribbean offshore medical schools, and the students they graduate, are perceived in Canada from the perspective of knowledgeable professionals. Interview participants were either involved in Canadian medical school administration or engaged with international medical graduates (IMGs) in their professional roles. Participants were employed in academic, governmental, and non-governmental organizations with senior or leadership roles. Seven participants held high-level administrative positions with medical faculties (e.g., Dean or Associate Dean). The remaining six participants held a variety of positions in governmental and non-governmental organizations, including policy analyst, research scientists, and community relations. Participants were drawn from six Canadian provinces with two based in the US with specific expertise relevant to the study goal.

Participants were recruited through purposive sampling, with initial contact made over email. Contact information was retrieved through publicly available information online. Medical education and health professional organizations were identified through web searches and published reports. We sought to identify participants with diverse

representation from across the country and ended recruitment when no new organizations or participants could be identified. This research was approved by Simon Fraser University's Research Ethics Board prior to recruitment; informed consent was obtained prior to the interviews. To accommodate confidentiality, identifying information related to participants or their affiliations is excluded from this article.

Thirteen 30-90 minute interviews were conducted by phone or teleconference in May-July 2016. Interviews were conducted by JM and organized by a semi-structured guide. Participants were asked to speak based on their knowledge and first-hand observations and were not required to speak on behalf of the organizations they represented, though in some cases they chose to. Collectively, they had very many decades of employment in the Canadian medical education or affiliated sectors and had seen or communicated with thousands of medical students/residents and health professionals in Canada and beyond. Participants had also been exposed to clinical practice environments and medical schools across Canada and in many other countries, and some had visited offshore medical schools or knew instructors working at such institutions. Participants drew on this extensive expertise to discuss their professional backgrounds, Caribbean offshore medicals, and the relationship between these schools and the Canadian health care and medical education systems.

All interviews were transcribed verbatim upon completion of data collection. Each transcript was reviewed by at least two authors. Following independent review, two meetings were held to discuss the transcripts, identify emerging themes, and prepare for thematic analysis. Data relevant to each theme were then extracted from the transcripts and organized into separate documents. These extracts were reviewed to confirm the scope and scale of each theme. Themes were then contrasted against the existing literature to identify contextual points and novel findings.

7.4. Results

The 13 participants had varying levels of knowledge about Caribbean offshore medical schools, at least one participant had a friend who had attended such a school. Participants understood that offshore medical schools attracted Canadian students, and that most Canadian graduates seek to return to Canada for postgraduate residency training and ultimately to practice.

Thematic analysis revealed three cross-cutting themes surrounding perceptions of Caribbean offshore medical schools brought forward by participants: (a) they are at the bottom of an international hierarchy of medical schools based on perceived quality of education; (b) they are heterogeneous in quality of education and student body; and (c) they have a unique business model, characterized by profit-generating and serving international students. In the remainder of this section we examine these themes, including direct quotes to enhance analytic reliability. Although we present these themes separately, we acknowledge their interrelatedness.

7.4.1. Hierarchy of Quality of Education

Participants often discussed international medical education in geographic terms, perceiving the quality of education as tied to a particular nation or region. In addition to the Caribbean, other countries or regions discussed included the United Kingdom (UK) and Ireland, Eastern Europe, Australia, Israel, South Africa, and Mexico. Participants used these countries or regions to make comparisons to Caribbean offshore medical schools, commonly viewing them as falling at the bottom of a hierarchy of medical training:

I'd probably trust Australia better than I would trust a Caribbean school. Poland, Hungary, I don't know...Irish schools are okay, but I would probably trust the Australian schools the most.

Personally, I have far less concerns when I know I am working with a resident who has trained at a British School, an Australian school, and to some extent a South African school. After that my biases will begin to show.

This perceived hierarchy positioned Ireland, the UK, and Australia as having the highest quality medical schools, and the Caribbean as having among the lowest quality.

Participants' perceptions of the quality of education abroad were informed by the several factors. Concerns raised with regard to the Caribbean offshore medical schools included: poor faculty/teacher-to-student ratio; low rates of licensing exam pass rates; absence of research programs; ambiguous or voluntary regional accreditation; and an overall poor quality of education. Participants viewed these concerns as particularly germane to the Caribbean region, as many offshore medical schools are relatively new, some without a single graduating class:

The schools...in the UK, Ireland, Australia, we know people from those schools, we have research collaborations with those schools...There have been so many new and emerging schools in the Caribbean, they don't have the history and the stature...so there's a perception that they're weaker schools.

As shown here, concerns sometimes arose in the context of lack of first-hand knowledge of graduates or medical faculty from these institutions. Generally, these concerns informed many participants' perceptions of the hierarchy of institutional quality to which Canadians studying medicine abroad much be attentive.

7.4.2. Heterogeneity in Quality of Education and Student Body

Although many participants were comfortable discussing Caribbean offshore medical schools in a regional context, there was recognition that there is great diversity among these institutions. Despite overwhelming and broad concerns about the quality of training offered at offshore medical schools, heterogeneity in quality of education was seen as an important element in this region:

I don't think there's any question that they're heterogeneous...the quality is markedly different...the heterogeneity in the quality of Caribbean medical schools is likely greater than the heterogeneity in Canadian medical schools.

Alongside quality of education, some participants noted heterogeneity among the student body between offshore medical schools:

The ones like St. George's, and Ross, and AUC [American University of the Caribbean] are probably getting...the students who just didn't get into US [and Canadian] medical schools... Some of the other smaller ones are...taking people who...didn't take the MCAT [Medical College Admission Test]...who come from India and other places in the world, go to medical school in the Caribbean and then use it as a pathway to get into the US.

In this way, the quality of the medical school was reflected in which students they could attract. Students in the US and Canada enrolled in top offshore medical schools, while students from India and elsewhere attended "*other, smaller*" offshore medical schools. These perceptions were informed by personal and professional experiences:

Well there's a few solid schools...St. Matthews, St. George's and Saba. Those are the ones that I'm aware of...it's more just because I have contacts.

The Caribbean is...for instance, St. George's is an excellent school, with an excellent reputation...and yet they're kinda tarred...I don't know each and every Caribbean school...there are excellent physicians who have come out of Caribbean schools.

These quotes illustrate that factors such as a participants' professional contacts or positive interactions with offshore medical school graduates help to shape held perceptions towards an individual school.

7.4.3. Unique Business Model

Participants understood the Caribbean offshore medical school model to be unique compared to both Canadian medical schools and other international medical schools that Canadians and Americans routinely attended. Two key factors set offshore medical schools apart from other models of medical education: (1) they serve an almost exclusively international student body; and (2) they are not integrated into the communities in which they are located, both in terms of training students for local practice or for offering local residency placements:

They're obviously not training for their own populations. They're training more than their need for their own populations...They're obviously just in it for a particular set of reasons, but they're not first and foremost about training physicians for their own people.

It's unique in that they're making some of the students do their USMLEs [US Medical Licensing Examinations]. That's different from schools in other parts of the world because they're not setting up for the American system [in these other regions], they're for their own country's system [where the school is based].

The Caribbean schools are built on the model of accepting an enormous number of students...doing no research whatsoever...and having no clinical relations whatsoever. The ones in Europe vary. I have visited personally only the ones in Israel, and the ones in Israel are well-established medical schools, full of Israeli students, that have a separate [smaller] channel for the Americans...they teach the classes in a mixture of Hebrew and English. But they do their clinical clerkships in Israel.

Participants regularly contrasted offshore medical schools' international student body to medical schools elsewhere, which "*first and foremost*" were about training physicians for local practice. For example, the participant in the third quote juxtaposes the Caribbean model with that of Israeli medical schools, which primarily serve Israeli students while training some international students. Participants intuitively understood that the large

number of graduates from these Caribbean schools each year, and their business model as an offshoring sector, meant that they were not training local or international students for practice in the Caribbean.

Some participants argued that by primarily serving an international student body—as opposed to training physicians to practice in the Caribbean region—the offshore model of medical education jeopardized these institutions' commitment to social accountability:

I suspect most of their motives aren't well aligned with the social accountability commitment that medical schools in Canada and the US have made...medical schools have identified...a requirement to give back to the community, and promote health equity...addressing the needs of the most vulnerable...I believe that that those [offshore] schools are just trying to get their students through the USMLE.

Modern medical education is different than having courses that are test-based courses [like the Caribbean]... The [Canadian] model of medical education is...based on the population that medical school is serving... In Canadian medical schools, the student spend time in the community, working with doctors in the healthcare system, right from almost entry into the medical school.

As can be seen in these quote, participants regularly used their knowledge of Canadian and US-based medical education in order to explain the perceptions they held about Caribbean offshore medical schools. This included Canadian educational norms and values, such as commitment to social accountability, which they extended to Caribbean offshore medical schools.

7.5. Discussion

This novel thematic analysis has examined how Caribbean offshore medical schools are perceived by Canadian medical school administrators and other medical education and health professional stakeholders. We believe that the perceptions of this group of knowledgeable informants is significant for several reasons. First, their perspectives expose *hegemonic* attitudes about Caribbean offshore medical schools, as participants were largely part of the medical education 'establishment' in Canada. Hegemonic beliefs and perceptions work towards legitimizing or normalizing certain ideas and values, and thus play an important role in shaping the discourse of a subject (Cox, 1983). Second, as participants are in policy-influencing positions, this analysis provides new insight into how issues that pertain to Caribbean offshore medical

schools—including the Canadians they train and graduate—are understood by those who are driving the relevant policy conversations. Finally, these findings can help inform prospective students' decision-making with regard to studying medicine abroad and spark dialogue in the Canadian medical education community about the practical implications of the perceptions shared here.

Based on participants' perceptions, students interested in studying medicine abroad may wish to consider the regional hierarchy of quality discussed in the findings. Although here we do not interrogate the accuracy of this hierarchy, which is a worthy topic for future research, its existence is something that Canadians who study medicine abroad need to carefully navigate should they wish to practice in Canada. While participants stressed heterogeneity between offshore medical schools and perceived several Caribbean offshore medical schools to be of high quality and have good reputations, the tendency to discuss and compare medical schools in regional terms risks obfuscating these important differences. It follows that the consistent growth of the offshore medical school industry in the Caribbean may result in adverse reputational harms for well-established offshore medical schools such as St. George's or regional public universities such as the University of the West Indies. This reputational harm is clearly reflected by one participant's comment: "*they're [all Caribbean medical schools] kinda tarred...I don't know each and every Caribbean school.*" As new offshore medical schools continue to open (and close) every year (Eckhert, 2010), we believe the Caribbean as a whole, and all students who graduate from these institutions, risk becoming increasingly tied to this negative perception, which also feeds notions of a regional hierarchy of medical education.

Participants discussed a number of factors that informed their perceptions of offshore medical schools, and particularly the quality of these institutions. Some of these factors were comparative in nature while others were more intuitive. Comparative factors were those that involved measuring the performance of these schools against one another or against schools elsewhere. For example, participants commonly brought forward admission standards or licensing exam pass rates as comparative factors informing their perceptions of offshore medical schools. Concerns regarding these pass rates and admission standards have been discussed elsewhere in the literature. With regard to licensing exam pass rates, van Zanten & Boulet (2011) found that the USMLE 'step one' first-attempt pass rate varied considerably between Caribbean counties and

over time. For example, in 2009, first-attempt USMLE 'step 1' pass rate ranged from 29.8% in Aruba to 90.6% in Grenada (van Zanten & Boulet, 2011). Another comparative factor used to explain or justify perceptions about Caribbean offshore medical schools held by participants was whether or not institutions were recognized by medical boards in locations where graduates will seek to practice. For example, there was some awareness that currently only graduates of four specific Caribbean offshore medical schools are eligible for practice in the US state of California (Medical Board of California, 2013; Eckhert, 2010). The scant existing literature about Caribbean offshore medical schools shows that the participants are not alone in using such comparative factors to justify perceptions of these institutions and the quality of education they provide (Ceaser, 2006; Maharaj & Paul, 2012).

Outside of comparative factors, participants also used intuitive factors to explain or justify the perceptions they held about Caribbean offshore medical schools. Such factors are relational and dependent on the experiences of the observer. For example, multiple participants mentioned personal and professional familiarity as intuitively giving credence to certain medical schools. Research activities at training institutions was intuitively understood as a signal of educational quality, while the absence of research stood out as a concern. The absence of research programs at Caribbean offshore medical schools has been problematized elsewhere in the literature (Eckhert, 2010; Ceaser, 2005; Halperin & Goldberg, 2016), and thus participants are not alone in this concern. In fact, some participants indicated that the lack of research engagement at these offshore institutions is preventing those in the international medical education community from gaining familiarity with the quality and nature of training they offer through opportunities for research collaboration. Similarly, lack of on-site exposure to these institutions left participants to rely heavily on second-hand information and perceptions based on intuitive factors in understanding Caribbean offshore medical schools. Overall, little is known about the mechanisms through which such intuitive personal and professional factors ultimately shape stakeholders' perceptions of these schools both in Canada and elsewhere. This is an important avenue for future research because as one participant said, "*my biases will begin to show*" in relation to how graduates of these schools are understood upon return to Canada.

Participants' perceptions of social accountability in medical education were clearly grounded in place, and emphasized a commitment to the local communities

within a defined geographic region where medical schools were located. For example, one participant describes social accountability as: “*based on the population that medical school is serving*” and stresses the importance of community engagement “*the students spend time in the community, working with doctors in the healthcare system.*” This model of social accountability is reflected elsewhere (Lindgren & Karle, 2011; Gibbs, 2011; Pong, 2009), including the Global Consensus for Social Accountability of Medical Schools (2010). The Global Consensus emphasizes that social accountability “recognizes the local community as a primary stakeholder” and in doing so, “shares responsibility for a comprehensive set of health services to a defined population in a given geographic area, consistent with values of quality, equity, relevance, and efficiency...” (Global Consensus for Social Accountability of Medical Schools, 2010, p. 5). These core principles of social accountability in medical education are incompatible with the offshoring model reported here. For example, this model is spatially diffuse. Students generally spend two years learning basic sciences in the Caribbean and clinical rotations are typically located in the US. While such clinical experiences may be favourable for students who intend to return to Canada or the US, they clearly do not benefit the Caribbean communities where these schools are based. In addition to clinical learning, most offshore medical schools also have head offices in the US and Canada (Eckhert & van Zanten, 2014), which reflects the fact that many offshore medical schools are foreign-owned and operated from outside the Caribbean. In 2014, for example, St. George’s University received a US\$750 million investment from a Canadian private-equity firm that now holds a majority stake in the university (Korn, 2014). This foreign ownership model has clear implications for social accountability, as offshore medical schools are accountable first to foreign shareholders. The findings of this analysis point to the fact that this model also has implications for how these schools are perceived by those in the international medical education community, and specifically for how the quality of education is understood.

7.6. Conclusion

Offshore medical schools are for-profit, private institutions in the Caribbean that primarily serve international students who intend to leave the region to practice medicine. This model of medical training has seen rapid growth in recent decades and is changing the landscape of international medical education. This study has examined

hegemonic perceptions of offshore medical schools and the Canadians they train, drawing from qualitative interviews with Canadian medical school administrators and stakeholders whose professional positions entail addressing the medical education system or physician workforce. Three cross-cutting themes were brought forward by participants: first, international medical education was discussed in geographic terms, comparing Caribbean schools to those in the UK and Ireland, Australia, and elsewhere. This revealed a perceived international hierarchy of medical education, where Caribbean offshore medical schools were considered to be of relatively poor quality. Second, despite viewing medical schools in regional terms, participants recognized heterogeneity between offshore medical schools. Finally, participants understood the offshore model of medical education to be unique, reflected in its focus on serving international students and profit-generating. Among other concerns, participants suggested this model of medical education could impact offshore medical schools' commitment to social accountability. The findings also point to the fact that offshore medical schools may be able to leverage personal or professional relationships to improve perceptions of quality as this was a key factor that informed the perceptions identified in this analysis.

Chapter 8. Conclusion

8.1. Overview

Caribbean offshore medical schools are private, for-profit enterprises that provide undergraduate medical education to international students, including from the United States (US) and Canada and countries in the Global South. Offshore medical schools are distinct from regional Caribbean medical schools, and other international medical schools that Canadians attend, because they do not principally train and serve a local population. Graduates from offshore medical schools often write US and/or Canadian licensing examinations, and typically intend to practice outside the Caribbean region. This growing offshore industry contributes to the movement of health workers across international borders and should be considered alongside other global healthcare mobilities.

Given the limited empirical research on the topic, particularly using qualitative methods or in the Canadian context, this thesis has used multiple qualitative datasets across three analyses to reveal some of the Canadian narratives that surround Caribbean offshore medical schools. First, a content analysis of institutional websites showed how offshore medical schools promote themselves to prospective students, understood as “push” and “pull” factors. Second, a qualitative media analysis exposed dominant themes and ideologies that frame discussion of offshore medical schools, and the Canadians they graduate, in the Canadian print media. Finally, the commonly-held perceptions of offshore medical schools were discerned, drawing from qualitative, semi-structured interviews with Canadian healthcare and medical education administrators.

Taken together, my research provides new insight into the perspectives of multiple stakeholders and lays the groundwork for future research on offshore medical schools as an emerging healthcare mobility. The remainder of this chapter will revisit my research objectives put forward in Chapter 1, incorporating relevant findings from my three analyses and highlighting how they contribute to the conceptual frameworks that ground my thesis. While each research objective is discussed separately, I acknowledge that they are not mutually exclusive. I conclude with a summary of the overall strengths of this thesis.

8.2. Revisiting Objectives

Here I revisit the conceptual frameworks and research objectives (see Chapter 1) of my thesis and connect them to the themes and issues raised in Chapters 3, 5, and 7. These objectives are to: (1) determine the hallmarks of the Caribbean offshore model of medical education; (2) identify Canadian narratives and perceptions related to offshore medical schools; (3) conceptualize the equity impacts of Canadians studying medicine abroad in the Caribbean; and (4) make recommendations for future research directions. Each analysis contributes to addressing these objectives.

8.2.1. Determine the hallmarks of the Caribbean Offshore Model of Medical Education

This central research objective reflects my interest in determining the hallmarks of the Caribbean offshore model of medical education, and cataloguing the institutions relevant to facilitating and/or restricting the movement of Canadian trainees across international borders to access medical education at these institutions. Ultimately, I define Caribbean offshore medical schools as:

Private, for-profit institutions located in the Caribbean that overwhelmingly attract and enroll international students, including those from the US and Canada, as well as students from the Global South. Graduates of these schools leave the Caribbean for clinical and postgraduate residency training, and typically intend to practice medicine outside the Caribbean, often returning or migrating to the US or Canada.

In this sub-section, I dissect this definition to uncover the hallmarks of offshore medical education, relating its central components to existing definitions in the literature and to the conceptual frameworks and empirical findings in my thesis.

The definition of offshore medical schools in this thesis was informed by existing academic literature (Ceaser, 2005; Johnson, Hagopian, Veninga, & Hart, 2006; Eckhert, 2010; Halperin & Goldberg, 2016), and confirmed by my three datasets: content from offshore medical school websites (Chapter 3), qualitative print media analysis (Chapter 5), and interviews with Canadian medical education and health workforce stakeholders (Chapter 7). I believe three characteristics make the Caribbean offshore model unique when compared to other medical schools that enroll international students: (1) they are for-profit; (2) they serve primarily international students; and (3) graduates must leave

the Caribbean for clinical and postgraduate residency training. All three characteristics have important implications on access to health services, mobility, and social accountability, which I address below.

First, the for-profit nature of offshore medical schools was most clearly articulated in my research through interviews with Canadian medical education and physician workforce stakeholders (Chapter 7). While some participants noted that the for-profit model can have negative impacts on social accountability—primarily through admissions protocols that do not prioritize equity or represent students from diverse backgrounds—several participants noted that, while uncommon in the Canadian context, for-profit medical education is not unique to the Caribbean, and is common in the US and elsewhere (Adashi, Gopika, & Gruppuso, 2017). Information related to offshore medical schools' for-profit business model, or relationships to parent corporations (e.g., DeVry Education Group as it relates to the American University of the Caribbean or Ross University), was notably absent or minimized from institutional websites (Chapter 3).

The fact that offshore medical schools are for-profit is important, and worth highlighting as a key hallmark of the offshore medical school model, for several reasons. First, it contributes to the commodification of health services, which is a known characteristic and outcome of global healthcare mobility (Ormond, 2011). For example, equity concerns are raised with regard to medical tourism, as this practice is known to grow the private healthcare sector in destination countries at the expense of the public sector (Pocock & Phua, 2011; Ormond, 2011). This has far reaching implications including access to care for local patients and the movement of health workers into the private sector (Snyder, Crooks, Johnston, Adams, & Whitmore, 2015). Second, with regard to post-secondary institutions, there is evidence documenting differences between student satisfaction and outcomes between for-profit and non-profit academic postsecondary institutions (Shireman, 2014). For example, in the US, students that attended for-profit postsecondary institutions were more likely to have higher burdens of student debt, default on student loans, and have poorer employment outcomes and were less satisfied with their education when compared to students who attended non-profit institutions (Deming, Goldin, & Katz, 2012). Academic and media literatures have also reported higher levels of student debts and poor employment outcomes among offshore medical school graduates (Watts, Davies, & Metcalfe, 2011; Curtis & Dube, 2015; Lorin, 2013). As such, drawing attention to the fact that offshore medical schools are for-profit

intentionally positions this offshoring practice within discourses of global healthcare mobility while critically raising concerns relevant to postsecondary education and social accountability.

The second defining hallmark of offshore medical schools is that they primarily serve international students. This point was clearly reflected in both offshore medical school websites (Chapter 3) and interviews with key informant stakeholders (Chapter 7). For example, content on offshore medical school websites regularly referred to shortages of physicians in the US or Canada, the international appeal of studying medicine in the (exotic and foreign) Caribbean, and the ability of graduates to practice in the US or Canada. Content on offshore medical school websites overwhelmingly appeared to target American and Canadian students, although sparse references were made to students from elsewhere (including the Caribbean region). In semi-structured interviews, key informants also stressed that Caribbean offshore medical schools do not primarily serve local populations, which was framed as a concern related to social accountability. Primarily, social accountability emphasizes meaningful relationships with the communities where medical schools are located, through training physicians to addresses health inequities, conducting relevant research, and providing health services. These principles of social accountability were perceived to be outside the offshore medical school model, which trained physicians to practice elsewhere.

It is worth noting that interviews with key informants offered a more nuanced characterization of students attending offshore medical schools, which expanded beyond students originating from the US or Canada. In particular, some participants expressed that American and Canadian students only enroll in the “top” offshore medical schools, whereas smaller, less reputable institutions attract students primarily from India, countries in Africa, and elsewhere in the Global South who typically want to practice in the US. This slight, albeit significant, finding is important as it represents a departure from the academic literature, which primarily frames offshore medical schools as serving US and Canadian students and impacted how I first understood this industry. I believe two forces are behind the erasure of students from outside the US and Canada in public discussions around offshore medical schools. First, academics researching offshore medical schools—such as myself—have been primarily from the US and Canada, and are thus interested in the experiences of these students (for more on my positionality as a Canadian researcher, see Chapter 1). Second, there is perhaps a conflation of where

students who attend offshore medical schools *originate* (e.g., Canada, US, India, countries in Africa, etc.) and where students ultimately *intend* to practice (e.g., the US and, to a lesser extent, Canada). Indeed, this is reflected in content on offshore medical school websites, which reference graduates practicing in the US and Canada and not elsewhere in the world. It is also reflected in nomenclature. For example, of the 49 offshore medical schools listed in the World Directory of Medical Schools, thirteen have the word “American” in their names, and an additional three have the name “Washington.” Clearly, offshore medical schools intentionally align themselves with the US, even if students enrolled originate from many other countries. In Chapter 3, I suggested this conspicuous alignment with the US could be an attempt to lend credibility to these institutions, as the US and Canada are associated with quality medical education and care. Notwithstanding, it is for these reasons that I make explicit reference to the US and Canada, without limiting my understanding of offshore medical school enrollees to be restricted to these students.

Finally, the third key hallmark of Caribbean offshore medical schools is that students and graduates must leave the Caribbean for clinical and postgraduate residency training. This is due to the limited clinical capacity in the Caribbean region (Monavvari, Peters, & Feldman, 2015; Canadian Resident Matching Service, 2010; Halperin & Goldberg, 2016), and because students must seek postgraduate training in the country in which they wish to practice (e.g., primarily the US or Canada). While this was clearly reflected in all three of my datasets, discussion of students leaving the Caribbean for clinical and postgraduate training was most apparent in my analysis of Canadian print media (Chapter 5). Indeed, several articles focused on the difficulty that Canadians face returning to Canada to practice, which was often framed as a failure of the government to address physician shortages. While barriers to practice in Canada exist for all international medical graduates, they may be exceptionally relevant for Canadians studying medicine at Caribbean offshore medical schools. Indeed, the Canadian Resident Matching Service states that offshore medical school graduates report greater difficulty arranging clerkships and residency training in Canada compared to Canadians studying abroad elsewhere (Canadian Resident Matching Service, 2010). As such, I believe emphasizing that offshore medical school graduates must leave the Caribbean for clinical training and practice is important because residency placements in Canada are not guaranteed.

Taken together, I believe these key hallmarks of offshore medical schools that are reflected in my thesis research and the academic literature accurately depict the Caribbean offshore model, while distinguishing it from other models of medical education. By emphasizing that these schools are for-profit and serve primarily international students (who circumvent admissions protocols in Canada and the US), this conceptualization links this offshoring practice to other forms of medical mobility and medical-related offshoring, such as medical tourism. While the ways in which all Caribbean offshore medical schools operate reflect the three hallmarks I have identified here, it is worth noting that these institutions remain heterogeneous.

8.2.2. Identify Perceptions and Narratives

Qualitative research has been acknowledged in the both fields of health geography and medical education research as instrumental towards uncovering the meaning and perceptions behind events and behaviours (Albert, Hodges, & Regehr, 2007; Irby, 1990; Kwan & Schwanen, 2016). Further, it is widely known that qualitative methods are an effective and logical starting point for hypothesis generating and exploratory research (Stebbins, 2001). Drawing from three textual datasets—content from offshore medical school websites, Canadian print media, and interviews with professionals and stakeholders—this thesis uses qualitative methods to examine the narratives and perceptions held by various stakeholders related to Caribbean offshore medical schools and the Canadians that attend them. Given the diversity of stakeholders and institutions represented in my datasets, it is unsurprising that a breadth of—sometimes contradicting—narratives and perceptions were expressed. In this subsection, I uncover two cross-cutting perceptions and narratives brought forward in this thesis research, highlighting contradictions and inconsistencies. The two cross cutting narratives and perceptions considered here are: (1) quality of education at offshore medical schools; and (2) heterogeneity among offshore medical schools.

Narratives regarding the quality of education at offshore medical schools were most prominently brought forward in the review of content on offshore medical school websites (Chapter 3) and interviews with key informants and stakeholders (Chapter 7). Unsurprisingly, content on offshore medical school websites portrayed the quality of education at these institutions favourably, highlighting high first-time US medical licensing examination (USMLE) pass rates, faculty trained in the US and Canada, and

small class sizes as evidence of high quality of education. That said, even between offshore medical school websites there was heterogeneity and contradiction. For example, schools with small class sizes framed this as contributing to a more personalized education: *“with a small class size we are able to provide the much needed one on one attention to all the students”* whereas larger offshore medical schools emphasized the size of their student body and faculty: *“you’ll benefit from a 70-person Foundations of Medicine faculty with impeccable credentials.”* I believe discrepancies between how offshore medical schools frame quality of education exist because they are in competition with each other (Chapter 3), and choose to highlight whichever measures of quality best reflect their institution.

On the other hand, key informants and stakeholders whose professional positions entail addressing the Canadian medical education system or the physician workforce did not perceive the quality of education at Caribbean offshore medical schools to be high (Chapter 7). Indeed, participants spoke to the quality of education at these schools in geographic terms, positioning schools in the Caribbean at the bottom of a global hierarchy of medical education quality. Participants’ perceptions of these schools were informed by both comparative and intuitive factors. Comparative factors included measures of quality brought forward on offshore medical school websites such as USMLE pass rates, while intuitive factors such as personal or professional familiarity were dependent on the experiences of the observer. Meanwhile, discussion of the quality of education was notably absent from print media articles (Chapter 5). This was surprising given the prevalence of discussions surrounding quality of education in the academic literature and online (Shomaker, 2010; Babcock, Babcock, & Schwartz, 2013; Ceaser, 2005; Halperin & Goldberg, 2016).

A second consistent narrative brought forward in my thesis relates to the heterogeneity of offshore medical schools. As discussed with relation to narratives of quality of education, offshore medical school websites draw attention to heterogeneity through competitive discourses that attempt to differentiate themselves to attract students. For example, content such as: *“Students who qualify are eligible to receive US student loans in order to attend the university. [This offshore medical school] is one of only four medical schools located in the Caribbean to earn this distinction”* and *“You won’t find the anonymous, big lecture hall experience at [this school] the way you do at many schools”* emphasizes relevant and important differences between themselves and

other offshore medical schools. Beyond offshore medical school websites, interviews with stakeholders revealed contradicting perceptions of heterogeneity. For example, sometimes participants discussed and referred to offshore medical schools broadly and homogeneously, comparing education in the Caribbean region to other countries and regions where Canadians are known to study medicine. That said, some participants also acknowledged heterogeneity between offshore medical schools, portraying them as *“markedly different.”* Perceptions of heterogeneity extended beyond quality of education and included student body, suggesting that Canadian and American students are likely to enroll in a small fraction of the “top” offshore medical schools, whereas less reputable or smaller schools attract students primarily from elsewhere, including the Global South.

Interestingly, the print media made no distinction between offshore medical schools. This finding suggests that despite concerted efforts to differentiate themselves through competitive discourses online, there is a tendency in the print media, and by some stakeholders, to portray offshore medical schools—and by extension, all Caribbean medical schools—as homogenous. I believe the conflation of differences between offshore medical schools, and between offshore medical schools and regional Caribbean medical schools, has far-reaching implications. First, given that important differences do exist between Caribbean medical schools with regard to first-time USMLE pass rates (van Zanten & Boulet, 2011) or state-specific licensing requirements (Medical Board of California, 2013; Eckhert, 2010), prospective students perceiving these institutions as homogenous may fail to account for these disparities. Second, conflating all medical schools in the Caribbean may produce reputational harms for well-established offshore medical schools or regional medical schools. For example, not one stakeholder differentiated between offshore medical schools and regional medical schools, such as the University of the West Indies, when discussing medical education in the Caribbean.

8.2.3. Conceptualize Equity Impacts

Equity is fundamentally concerned with fairness and the elimination of disparities between groups with different levels of social advantage (Braveman & Gruskin, 2003; Whitehead, 1992). Furthermore, identifying and addressing health inequities are research priorities for both health geographers and medical education researchers (Kearns & Moon, 2002; Luginaah, 2009; Pong, 2009). I operationalize equity two ways in this thesis: (1) as access to health services; and (2) as practicing social accountability. In

what follows, I discuss how findings from this thesis research relate to these two conceptualizations of equity.

I consider access to health services, where these services are dependent on the training and practice of new medical professionals, as a primary lens through which to understand the equity dimensions of this global healthcare mobility. The relationship between medical training and health care is profound, not only because the provision of health services is the central purpose of medical training (e.g., clinical training), but also because “medical care is the ultimate outcome of medical education” (Gonnella, et al., 2004, p. 9). Furthermore, given known associations between medical students’ backgrounds and likeliness to care for underserved populations, there is a clear relationship between access to medical education and addressing health inequities. For example, medical students from lower socioeconomic deciles at entry to medical school are more likely to care for underserved populations (Puddey, Playford, & Mercer, 2017; Rabinowitz, Diamond, Veloski, & Gayle, 2000), and physicians from rural origins are more likely to serve rural populations (Rourke, 2009).

Access, as it relates to health services (such as medical education), is a complex concept with a variety of intersecting components. Gulliford et al. (2002) suggest that affordability, physical accessibility, and relevance and effectiveness should all be considered when evaluating access, which I consider when evaluating the accessibility of Caribbean offshore medical schools. Predominantly, offshore medical schools are believed to increase access to health services by offering greater opportunities for medical education (van Zanten & Boulet, 2013). This was explicitly stated on offshore medical school websites: “*Canada faces a growing shortage of physicians... [This medical school] offers an alternative path to becoming a MD in Canada.*” In this way, offshore medical school graduates were thought to contribute to health equity by returning after graduation and addressing perceived physician shortages back in Canada. While it is undeniable that offshore medical schools increase the number of undergraduate medical school seats available to Canadians at the international scale, their impact on access and equity is complicated when considering the three components of access—affordability, physical accessibility, and relevance (Gulliford, et al., 2002).

First, with regard to affordability, it is known that many offshore medical schools—particularly those that Canadians are thought to most attend—are relatively expensive, especially when compared to Canadian medical schools (Canadian Resident Matching Service, 2010). For example, a four-year medical degree at St. George's University—a large offshore medical school in Grenada—is reported to be over US\$250,000 (St. George's University, 2017), compared to the average Canadian tuition of just over CAD\$50,000 for a four-year degree (Association of Faculties of Medicine of Canada, 2015). While Canadian medical school tuition and application fees undoubtedly remain a barrier for many Canadians interested in studying medicine (Azpiri, 2010; Khan & Apramian, 2016), the fees at offshore medical schools are particularly high and thus registration is limited to those with the financial means to attend. The benefits of equitable access to medical education—particularly regarding socioeconomic status—are widely known (Khan & Apramian, 2016; Association of Faculties of Medicine of Canada, 2010; Steven, Dowell, Jackson, & Guthrie, 2016). Beyond the grounds of social justice, a physician workforce that reflects the diversity of Canadians is important for patient care and health equity, as physicians “tend to serve patient populations that reflect their own personal backgrounds” (Khan & Apramian, 2016, n.p.; Steven, Dowell, Jackson, & Guthrie, 2016; Heng, et al., 2007; Cleland, et al., 2012).

The second component of access, physical accessibility, is particularly relevant to the Caribbean offshore model of medical education, and is related to affordability. The offshore medical school model is spatially diffuse, with campuses in the Caribbean and clinical rotations in the US. While air travel and communication technologies have radically reduced the cost of mobility (Parry, Greenhough, Brown, & Dyck, 2015), some Canadians may find the cost of travel to the Caribbean, US, and Canada a barrier to this form of training and ultimately to medical practice. Furthermore, while likely a greater concern for offshore medical students from countries outside North America (e.g., students from India, countries in Africa, etc.), crossing international borders may present additional challenges to accessibility, such as obtaining a visa or immigration.

Finally, access to health services in the context of relevance and effectiveness can be summarized as ‘providing the right service at the right time in the right place’ to a given population (Gulliford, et al., 2002, p. 187; Rogers, Flowers, & Pencheon, 1999). In this way, how offshore medical schools contribute to access depends on how one defines the population receiving service. This point is closely related to social

accountability, which is the second way that I conceptualize equity in this thesis. Primarily, social accountability in medical education emphasizes training and research activities that will benefit the communities in which schools are located (Gibbs, 2011; Pong, 2009; Lindgren & Karle, 2011). For example, the World Health Organization defines social accountability in medical education as: “The obligation to direct their education, research and service activities towards addressing the priority health concerns of the community, region, and/or nation they have a mandate to serve” (Boelen & Heck, 1995, p. 3). Given the significance of relevance to local populations in models of access and social accountability, in Chapter 7 I outline how offshore medical schools’ commitment to social accountability can be compromised, as they primarily serve students from outside the Caribbean and who ultimately leave for practice, many returning or migrating to the US.

On the other hand, part of a social accountability commitment relates to the fact that medical schools are generally subsidized in part by local and/or national governments (McCurdy, et al., 1997). While each country and province/state/region/city will subsidize medical education differently, one way is through student aid. For example, the US Federal Student Aid program offers a variety of student aid options, including subsidized student loans, low-interest loans, and government-backed loans for eligible students (Federal Student Aid, n.d.). As I reveal in Chapter 3, students enrolled in any of four offshore medical schools—St. George’s, Ross, American University of the Caribbean, and Saba—are eligible to receive Title IV Federal Student Loans. Despite that only four offshore medical schools are eligible for this program, they took in a significant amount of US federal student aid. Data from the US Department of Education reports that these four offshore medical schools received US\$398,411,004 in Title IV revenue (Department of Education, 2016). Further, there have been claims that some offshore medical schools in the Caribbean that are not eligible for US federal student aid may encourage their students to also enroll in an online Master’s program in their country of origin to receive US federal student aid while simultaneously training in the Caribbean (Halperin & Goldberg, 2016; Lorin, 2013). Notwithstanding, this clear subsidization of offshore medical schools from US Federal Student Aid raises important questions about social accountability commitments that extends beyond geographic borders.

8.2.4. Future Research Directions

This thesis research has identified several knowledge gaps and proposed future research directions regarding offshore medical schools and the Canadians they graduate, in addition to future research directions raised in Chapters 3, 5, and 7. Addressing these knowledge gaps will require a diversity of interdisciplinary research methods and conceptual frameworks. Here I introduce three categories of future research directions emerging from my research I believe are pertinent for advancing this subject, which are the: (1) experiences and perceptions of offshore medical school students and graduates; (2) experiences and perceptions stakeholders in Caribbean host countries; (3) transnational models of social accountability.

Future research should consider the perceptions and experiences of offshore medical students and graduates. Such research should not only include students from the US and Canada, but should also account for the unique perspectives of offshore medical students from India and countries in Africa and Asia. Further effort should also be made to identify the origin countries of students attending offshore medical schools. Research on the experiences and perceptions of students should consider: motivational factors that encourage students to enroll in Caribbean offshore medical schools; how students learn about offshore medical schools; how students perceive the quality of education at offshore medical schools; and what challenges and barriers, if any, graduates face in obtaining postgraduate residency training.

Notably absent from my thesis research are the experiences and perspectives of stakeholders in Caribbean host countries where offshore medical schools are located. This is a considerable knowledge gap given the potentially significant economic and social impact these schools can have on small Caribbean host countries. Future research should on this topic should: identify stakeholders (e.g., government ministries, private firms, residents) in the Caribbean involved with facilitating or regulating the growth of the offshore medical school industry; the perceived economic, social, and political impacts of offshore medical schools at the local and regional scale; how local stakeholders perceive offshore medical schools and their students; and impacts on the local healthcare and medical education systems.

Finally, this thesis has revealed potential discontinuity between the Caribbean offshore medical school model and existing models of social accountability. Future research on this topic should ask: how do offshore medical schools engage with local host communities; in what ways do local host communities subsidize this industry; and how can offshore medical schools better address the context-specific needs of their host communities? Given the economic ties to the US and Canada through federal and provincial student loan programs, and that graduates conduct clinical, residency, and ultimately practice in these countries, new models of transnational social accountability in medical education should include relevant communities beyond where offshore medical schools are located.

8.3. Strengths of This Study

In addition to the importance of this study that I outlined in Chapter 1, I believe a considerable strength of this thesis overall is related to the use of multiple datasets and methods. In doing so, my research not only brings forward a broad scope of perspectives with a range of insights but it also triangulates certain findings, such as perceived factors that motivate Canadians to study at offshore medical schools and that offshore train physicians to practice outside the Caribbean region. Triangulation refers to the use of multiple datasets or analytical approaches to enhance credibility and confirm findings (Whitmore, 2015; Moran-Ellis, et al., 2006). Furthermore, the multiple datasets I have included in this study capture the narratives and perceptions brought forward by the stakeholder groups which are in positions to shape health human resource policy and public opinion. For example, postsecondary websites are known to be a primary source of information for prospective students' decision-making (Adelman, 2006; Kittle & Ciba, 2001), thus offshore medical school websites play a critical role in defining how students perceive these schools and influence the discourses surrounding this topic. Print media is also a source of information for prospective students and policy-makers (Rachul & Caulfield, 2015), and is known to play a critical role in shaping public awareness and opinion on a subject (Kline, 2006). Finally, Canadian medical educators and physician workforce administrators are part of the medical education 'establishment' in Canada, and are in policy-influencing positions. Taken together, I believe this thesis provides a comprehensive overview of the hegemonic discourses healthcare mobility in

the Canadian context, while confirming the presence of certain narratives or perceptions across multiple datasets through triangulation.

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Appendix A.

Sample Interview Questions

Introductions:

- This study uses qualitative interviews with key informants to understand the impacts of offshore medical schools on the Canadian healthcare system
- I define offshore medical schools as for-profit, private enterprises located in the Caribbean and Central America that provide undergraduate medical education to primarily U.S. and Canadian students who wish to return home and practise medicine. In my research, I am most focused on the schools operating in the Caribbean
- I differentiate offshore medical schools from other international medical schools that accept Canadian and local students and train to local standards or certification/licensing requirements

Interview questions:

1. Tell me about the institution you work for, and your position within it.
 - a. How long have you been in this professional role?
2. How familiar are you with the practice Canadian students travelling to the Caribbean for offshore medical education?
 - a. How did you gain awareness of this issue?
 - b. Is this phenomenon 'on the radar' where you work? For what reason?
3. How do you perceive the quality of education at these institutions?
 - a. Do you think there are differences in quality of education between offshore medical schools?
 - b. Do you think there is a difference between offshore medical schools and other international medical schools?
4. Students enrolled in offshore medical schools are often characterized as being rejected from domestic medical schools.
 - a. In your experience, do you think this is the case?

- i. What is driving the competitiveness of Canadian medical school entry?
 - b. What other factors are driving Canadian students abroad to offshore medical schools?
- 5. Do you view offshore medical schools as competition to your medical school?
 - a. To other specific Canadian medical schools?
 - b. To Canadian medical schools in general?
- 6. Offshore medical schools are sometimes portrayed as a partial solution to critical physician shortages in Canada.
 - a. In your experience, is there is a physician shortage in Canada?
 - i. *If yes:* How do you characterize this shortage?
 - ii. *If yes:* What is your organization's role in addressing this shortage?
 - iii. *If yes:* Do you believe offshore medical schools could be a viable solution to this shortage?
 - iv. *If no:* What are the potential impacts of an influx of medical students from abroad?
- 7. Do see offshore medical schools have any positive or negative impacts on the Canadian healthcare system?
 - a. What are these impacts?
 - b. What do you see as being the most pressing impact?
- 8. No international standard for medical education exists, however most offshore medical schools train to USMLE standards.
 - a. What are the benefits or drawbacks of this training philosophy for Canadians attending OMSs who wish to come back to practice in Canada?
- 9. Many Canadian students who study medicine abroad wish to return to Canada to practise medicine, although face difficulties finding residency placements.
 - a. Do you believe it is in Canada's best interest to facilitate the entry of these Canadian international medical graduates into Canada?
- 10. Do you believe Canadian citizens and healthcare consumers are better or worse off by the growth of the offshore medical school industry?
- 11. Broadly, can you imagine any positive or negative impacts of the presence of OMSs for host countries?

Appendix B.

Tables

Table B1. Offshore medical schools and websites included in Chapter 5

Name of institution	Homepage URL	Year founded	Country
All American Institute of Medical Sciences (AAIMS)	www.aaims.edu.jm	N/A	Jamaica
All Saints University School of Medicine - Dominica	www.allsaintsuniversity.org	2006	Dominica
All Saints University of Medicine - St. Vincent and the Grenadines	allsaintsu.org	N/A	St. Vincent and the Grenadines
American Global University School of Medicine	www.agusm.org	N/A	Belize
American International Medical University	haimu.us	N/A	St. Lucia
American International School of Medicine (AISM)	www.aism.edu	1999	Guyana
American University of Antigua (AUA) College of Medicine	www.auamed.org	2004	Antigua and Barbuda
American University of Barbados School of Medicine	www.aubmed.org	2012	Barbados
American University of Integrative Sciences - St. Maarten School of Medicine (AUIS)	www.auis.edu	1999	St. Maarten
American University of St. Vincent School of Medicine	www.ausmed.us	2012	St. Vincent and the Grenadines
American University of the Caribbean (AUC)	www.aucmed.edu	1978	St. Maarten
Atlantic University School of Medicine (AUSOM)	ausom.org	N/A	St. Lucia

Aureus University School of Medicine	www.aureusuniversity.com	2004	Aruba
Avalon University School of Medicine (AUSOM)	www.avalonu.org	2003	Curaçao
Caribbean Medical University School of Medicine	www.cmumed.org	2007	Curaçao
Central America Health Sciences University	www.cahsu.edu	1996	Belize
College of Medicine and Health Sciences	www.comhssl.net	2001	St. Lucia
Georgetown American University (GUA)	www.gau.edu.gy	2013	Guyana
GreenHeart Medical University	www.greenheartmed.org	2004	Guyana
International American University College of Medicine (IAUCOM)	www.iau.edu.lc	2003	St. Lucia
International University of the Health Sciences (IUHS)	www.iuhs.edu	1997	St. Kitts and Nevis
International University School of Medicine (IUSOM)	www.internationaluniversity-schoolofmedicine.org	2005	Bonaire (additional campuses in Pakistan, Mexico, Colombia)
Medical University of the Americas	www.mua.edu	1998	St. Kitts and Nevis
Ross University School of Medicine	www.rossu.edu	1978	Dominica
Saba University School of Medicine	www.saba.edu	1986	Saba
Saint James School of Medicine Anguilla	www.sjsm.org	2001	Anguilla

Saint James School of Medicine Bonaire & St. Vincent	www.sjsm.org	1999	Bonaire
Spartan Health Sciences University School of Medicine	www.spartanmed.org	1980	St. Lucia
St. George's University School of Medicine	www.sgu.edu	1976	Grenada
St. Martinus University Faculty of Medicine	www.martinus.edu	2003	Curaçao
St. Matthew's University School of Medicine	www.stmatthews.edu	1997	Cayman Islands
Texila American University (TAU)	www.tauedu.org	2010	Guyana
Trinity School of Medicine	www.trinityschoolofmedicine.org	2008	St. Vincent and the Grenadines
University of Health Sciences Antigua (UHSA)	www.uhsa.ag	1982	Antigua and Barbuda
University of Medicine and Health Sciences (UMHS)	www.umhs-sk.org	2007	St. Kitts and Nevis
University of Science, Arts and Technology - Montserrat	www.usat.org	2003	Montserrat
Windsor University School of Medicine	www.windsormed.org	1998	St. Kitts and Nevis
Xavier University School of Medicine	www.xusom.com	2005	Aruba

Table B2. Print news media included in media analysis (Chapter 5)

Author	Date	Title	Publisher
Oakland, R.	1980	Even out of season, Grenada Carinaval is a joy	The Globe and Mail
Gadd, J.	1983	THE GRENADA INVASION Medical graduates face bleak future	The Globe and Mail
N.A.	1983	Stronghold crushed; general holds out	The Globe and Mail
N.A.	1984	Phony medical papers probed by U.S. states	The Globe and Mail
Rule, S,	1984	Barbs replace bullets Medical school faces siege of different sort	The Globe and Mail
N.A.	1986	Regan in Grenada vows freedom for Nicaragua	The Ottawa Citizen
Gregory, I.P.	1988	Jobless doctor taking case to right panel	The Globe and Mail
Appleby, T.	1989	Grenada – and U.S. self-interest	The Globe and Mail
N.A.	1989	Troops sent to lawless island; Hundreds in fear for lives flee hurricane-ravaged S. Croix	The Ottawa Citizen
Knutzen, E.	1992	Southern Exposure	Toronto Star
Kohanik, E.	1992	Collection of zanies Going to Extremes	The Windsor Star
Kilpatrick, K.	2000	Sunshine with a dash of spice; Scents of nutmeg, cloves and cinnamon add to Grenada's unique flavour	Toronto Star
Mandal, V.	2001	Lives in Windsor, MD heals in U.S.	The Windsor Star
N.A.	2002	MDs frustrated by lack of acceptance	The Windsor Star
Lu, V.	2002	Ontario to move on doctor shortage; Considers easing restrictions on foreign-trained physicians	Toronto Star
Oakland, R.	2002	Cruising the Canadian Caribbean Islands beckon to pallid Canada; Why not our own island paradise? Survey suggests we could make a deal	Toronto Star
Dougherty, K.	2003	Quebec MD not allowed to practice here	The Montreal Gazette
Lakoff, D.	2004	Footdragging won't aid health care	The Ottawa Citizen
Wall, M.	2004	It's not the first time	The Ottawa Citizen
Williamson, D.	2005	Med students forced abroad: Canadians unable to find schooling at home may never return	The Windsor Star
Brook, P.	2006	Forced to study abroad	The Vancouver Sun
Blackwell, T.	2006	Town funds future MD's schooling in Hungary: Canadian doctor shortage	National Post
Blackwell, T.	2007	Wood-be MDs forced overseas for studies; 1,500 Abroad: Estimate	National Post
Ali, N.	2007	Keeping Canada supplied with MDs	National Post
N.A.	2008	Private medical schools are worth studying	The Montreal Gazette
Schwarcz, J.	2009	How do you choose from the brightest and best	The Montreal Gazette

Wray, A.	2010	She's a role-modelquin	The Abbotsford News
Boesveld, S.	2011	Doctors charged with using date-rape drug on woman, 23	National Post
Harrison, M.	2011	We're locking doctors out	Telegraph-Journal
French, J.	2011	Private agency hired to recruit doctors	Leader Post
N.A.	2011	Medical school in Caribbean after winning Old Navy contest	The Abbotsford News
Yang, J.	2012	MD claims 'witch hunt': Former Scarborough resident accused in U.S. of lying on medical school application and of Medicare fraud vows to fight bid to revoke his license	Toronto Star
Chow, W.	2013	Jane Shin recounts 'traumatic' campaign experience	Burnaby News Leader
Evans, G.	2013	Jane Shin should resign	Burnaby Now
Moreau, J.	2013	Newly elected MLA still not commenting	Burnaby Now
Woo, A.	2013	Dix resists urge to return liberal fire	The Globe and Mail
McDiarmid, J.	2013	Student survives brutal stabbing in St. Kitts: Samar Haroun's horror began with a knife-wielding man in her apartment closet	Toronto Star
Oosenburg, M.	2013	Tomorrow's physicians	The Montreal Gazette
Sherlock, T.	2013	World's top schools courting Canadian students	The Vancouver Sun
Barer, M. & Evans, R.	2013	Canada will soon face a glut of new physicians	Star – Phoenix
Barer, M. & Evans, R.	2013	Canada is heading toward an over-supply of MDs	The Province
Olsen, T.	2014	Winner of \$100,000 prize fulfills promise	The Abbotsford News
Cummings, M.	2015	Murder suspect released from custody in Saba	Edmonton Journal
Pruden, J.G.	2015	Canadian held in death of U.S. medical student; Police on Caribbean island say probe yielded 'incriminating evidence'	Calgary Herald