Towards More Ethical and Equitable Health Care: Exploring the Cases of Medical Crowdfunding and Global Medical Missions

by Benjamin Nii Badu Lartey

M.Phil., Norwegian University of Science and Technology, 2017 B.A., University of Ghana, 2013

> Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Arts

> > in the Department of Geography Faculty of Environment

© Benjamin Nii Badu Lartey 2024 SIMON FRASER UNIVERSITY Summer 2024

Copyright in this work is held by the author. Please ensure that any reproduction or re-use is done in accordance with the relevant national copyright legislation.

Declaration of Committee

Name:	Benjamin Nii Badu Lartey
Degree:	Master of Arts
Title:	Towards More Ethical and Equitable Health Care: Exploring the Cases of Medical Crowdfunding and Global Medical Missions
Committee:	Chair: Paul Kingsbury Professor, Geography
	Valorie Crooks Supervisor Professor, Geography
	Jeremy Snyder Committee Member Professor, Health Sciences
	Jean-Christophe Bélisle-Pipon Examiner Assistant Professor, Health Sciences

Ethics Statement

The author, whose name appears on the title page of this work, has obtained, for the research described in this work, either:

a. human research ethics approval from the Simon Fraser University Office of Research Ethics

or

b. advance approval of the animal care protocol from the University Animal Care Committee of Simon Fraser University

or has conducted the research

c. as a co-investigator, collaborator, or research assistant in a research project approved in advance.

A copy of the approval letter has been filed with the Theses Office of the University Library at the time of submission of this thesis or project.

The original application for approval and letter of approval are filed with the relevant offices. Inquiries may be directed to those authorities.

Simon Fraser University Library Burnaby, British Columbia, Canada

Update Spring 2016

Abstract

The increasing practices of medical crowdfunding and global medical missions have enabled people and communities facing health inequities to access essential healthcare services not provided by local public health care systems. However, these distinct practices both raise significant ethical concerns. My thesis explores the motivations and roles around involvement in these practices through ethical and equity lenses. Specifically, my thesis comprises two analyses. The first uses qualitative semi-structured interviews to examine how Canadian medical crowdfunding campaigners approach and safeguard privacy concern when fundraising for others' health needs. The second employs a comparative thematic approach to analyze GoFundMe crowdfunding campaign narratives posted by pre-medical and medical students, uncovering motivations for wanting to participate in medical missions to Ghana. Both analyses emphasize the importance of ethical practices and advocate for careful consideration in supporting access to care. Overall, this thesis offers valuable insights into the practices and ethical and equity dimensions of medical crowdfunding and global medical missions, contributing to the existing literature.

Keywords: medical crowdfunding; global medical missions; qualitative; ethics; motivations

Dedication

I dedicate this research thesis to the campaigners and their recipients. Their devoted time, efforts, and contributions were indispensable to the success of this study.

Acknowledgements

Above all, I extend my utmost gratitude to Professor Valorie Crooks and Professor Jeremy Snyder, my supervisor and committee member, for their invaluable guidance, constructive feedback, and unwavering encouragement throughout my MA studies. Their expertise and commitment to outstanding research will undoubtedly shape my future endeavors in research. I would like to thank the Social Sciences and Humanities Research Council for their funding, which financially supported my research on medical crowdfunding. I also express my heartfelt appreciation to every member of the Lartey family for their enduring support and motivation, not only in my academic pursuits but also in all other facets of my life.

Table of Contents

Decla	aration c	of Committee	ii
Ethic	s Stater	nent	iii
Abstr	act		iv
Dedic	cation		V
Ackn	owledge	ements	vi
Table	e of Con	tents	. vii
Chap	ter 1.	Introduction	1
1.1.	Backgr	ound	3
	1.1.1.	Health Geography	3
	1.1.2.	Crowdfunding	5
	1.1.3.	Medical Crowdfunding	6
1.2.	Resear	ch Aims and Questions	8
1.3.	Thesis	Structure	9
	1.3.1.	"information we didn't want to share got edited out": Qualitatively exploring the role responsibilities taken on by Canadians who crowdfur on behalf of someone else from a privacy perspective	
	1.3.2.	"We will get toassist the staff of the hospital": Comparatively explorin the motivations of pre-medical and medical students from Global North countries for seeking to participate in Ghanaian medical missions	ig I
1.4.	Signific	ance of this Research	
1.5.	•	nality and reflexivity	
Chap	explori	<i>"…information we didn't want to share got edited out</i> ": Qualitative ng the role responsibilities taken on by Canadians who crowdfund of someone else from a privacy perspective	on
2.1.	Abstrac	>t	.13
2.2.	Backgr	ound	.14
2.3 N	lethods		.16
2.4 F	indings		.18
	2.4.1 M	anaging Initial Content	.19
		avigating Informational Considerations	
	2.4.3 Fa	acilitating Ongoing Connections	.21
2.5 D	iscussio	on	.22
2.6 C	Conclusio	ons	.25
2.7 T	ables ar	nd Additional Files	.27
2.8 R	Referenc	es	.27
-	explori North c	We will get toassist the staff of the hospital": Comparatively ng the motivations of pre-medical and medical students from Glob ountries for seeking to participate in Ghanaian medical missions	.33

3.2 Background3	4
3.2.1 Ghana as a Host Country for Medical Missions	6
3.3 Methods	8
3.4 Findings4	.1
3.4.1 Motivations for Selecting Ghana4	2
3.4.2 Motivations for Engaging Others4	-3
3.4.3 Motivations for Planned Actions4	4
3.4.4 Motivations for Gaining Experience4	-5
3.5 Discussion4	6
3.6 Conclusions5	0
3.7 References5	51
Chapter 4. Conclusion 6 4.1 Overview 6 4.2 Revisiting the Research Questions 6 4.2.1 What roles and associated role responsibilities do Canadian crowdfunding campaigners take on in approaching and safeguarding the privacy of others when fundraising for their health needs? 6 4.2.2 What are the key motivations among medical and pre-medical students seeking to participate in global medical missions, as documented in educational crowdfunding campaigns, and what are the health equity implications of their participation in rural communities in Ghana? 6 4.3 Bridging the Two Analyses 6	51 52 52 53 54
4.4 Future Research Directions6	6
Additional References6	8
Appendix A. Campaign Maker Interview Guide7	'7

Chapter 1.

Introduction

Medical crowdfunding¹ is becoming a more common way to finance health related costs. This trend is especially popular among people who face serious health conditions and do not have sufficient health insurance coverage (Kenworthy & Igra, 2022). This practice further reflect the changes in how people seek and obtain financial support for their health needs outside of traditional health insurance coverage and government support programs (Volna, 2024; Herna et al., 2019). Popular fundraising websites including GoFundMe have evolved (see Wang et al., 2021; Hommerová, 2020), offering people an opportunity to rally financial support and resources for medical expenses (M. Zenone & Snyder, 2019). People may lead their own fundraising campaigns or have friends and family members organize and manage campaigns on their behalf (Zenone & Snyder, 2019; Belleflamme et al., 2013).

The practice of medical crowdfunding has raised several ethical issues, inviting critical examination into its implications for the breach of privacy, challenges to informed consent, fraud, and misinformation, and its impact on health equity and sustainability (Livingstone et al., 2023; Supekar, 2023). In this research thesis, my primary focus is on the issue of privacy in medical crowdfunding, a form of donation-based charitable crowdfunding (Ahlers et al., 2015). I refer to privacy as the safeguarding and considerate management of personal and sensitive information that campaigners provide throughout the crowdfunding process. This involves preventing the access, misuse, or exposure of the recipient's identity, health and financial information (see Parent, 2001). Giving people autonomy over how their information is shared with the public and making sure their involvement in crowdfunding has no unforeseen repercussions, like prejudice or stigma, are other important aspects of privacy (Kraus et al., 2016; Roessler, 2015). As recipients disclose some personal information to inspire donations, in many ways, campaigners

¹ Medical crowdfunding is the act of financing health-related needs through voluntary donations solicited via an open call to an undefined group of people on the internet (Lee & Lehdonvirta, 2022).

may trade-off their privacy (Schneiderhan & Lukk, 2023). Are campaigners aware of this trade-off? How do they navigate privacy considerations when creating campaign content? How do such considerations play out when people create and post campaigns on others' behalf?

This research thesis employs qualitative methods to provide answers to the research questions. The first analysis shown in the chapter 2, examine the roles and associated role responsibilities² Canadian campaigners take on when fundraising for others' health needs. In the third chapter, I thematically analyze publicly available crowdfunding campaigns from GoFundMe website created by those fundraising to support their future participation in a medical mission to Ghana. I examine the similarities and differences in their motivations, raising critical questions about the impact of premedical students' participations and practices on health care equity and sustainability in rural communities in Ghana.

While Chapters 2 and 3 have different analytical focus, they are linked by the underlying theme of ethical and equitable responsibility in vulnerable contexts. The conceptualization of the second study in Chapter 3 on students' motivations to seeking to participate in Ghanaian medical missions, emerged in response to the challenge encountered during the recruitment of participants for the first study on privacy roles and role responsibilities in medical crowdfunding. Recruiting participants willing to share their experiences and insights posed significant challenges. This challenge called for the need to identify alternative, accessible sources of data that could still offer valuable insights into ethical issues into the growing practice of global medical missions. In this regard, crowdfunding narratives provided a unique opportunity to exploring the health equity implications of their motivations and participation, particularly among pre-medical students seeking to engage in global medical missions to Ghana. This allowed me to

² Role responsibility is defined as duties and ethical obligations that different campaigners take on in safeguarding the privacy of recipients to ensure the integrity, transparency, and fairness of the crowdfunding process (Young, 2017). These activities include the careful selection of information to create and post crowdfunding campaigns, balancing privacy concerns against creating appealing campaigns and identifying key donors across diverse platforms to encourage sharing.

focus on the ethical implications of both practices while addressing the limitations encountered during the data collection process.

In addition, the use of crowdfunding narratives as a data source for exploring student motivations in medical missions is not a methodological shift but also a conceptual bridge linking both studies. Both studies are deeply concerned with the ethical implications of actions taken in contexts where vulnerable populations are involved. In the first study, the focus is on the ethical challenges of privacy in the public disclosure of health needs and approaches adopted in safeguarding the privacy of recipients, while the second study examines the ethical implications of pre-medical students' involvement in global medical missions, particularly regarding health equity outcomes on rural communities in Ghana. Thus, I provide a comprehensive examination of how peoples' altruistic motivations and ethical responsibilities have implications that intersect in different but yet related contexts. This strategy highlights the role of ethical considerations that runs through both studies.

In this introductory chapter, I start by incorporating discussions from health geography to situate my research. I further contextualize my research thesis by engaging with existing literature on medical crowdfunding, analyzing its impacts and ethical considerations, with a focus on privacy. I also present the research aim and objectives, the structure of the research thesis and its significance. I finally conclude by offering a statement on my positionality, reflecting on my experiences during the research process.

1.1. Background

1.1.1. Health Geography

Health geography, situated within the broader domain of human geography, scrutinizes the interconnections between humans, and environmental processes in shaping health and wellbeing (Spencer & Grace, 2016; Brown & Moon, 2012; Wright & Perry, 2010; Kearns & Moon, 2002). This interconnection entails spatial, socio-cultural, economic, and political factors that have significant influence on health outcomes (Hazen & Anthamatten, 2019). Thus, health geography takes a holistic approach to incorporate society and space, conceptualizing the importance of place, location, and space in

health, well-being, and disease (Dummer, 2008). Embracing an interdisciplinary stance, health geography strives to enrich our knowledge of health and illness, fostering nuanced approach that transcends biomedical solutions (Gatrell & Elliott, 2014). Central to discussions in health geography are issues of social justice and equity, along with the structured dynamics of inequality and marginalization (see Braveman, 2014, 2006), the commodification and marketization of health care services (McKinlay, 2022; Timmermans & Almeling, 2009), accessibility to health care services (Rosenberg, 2014; Dummer, 2008), and the impact of scale and the growing interconnectedness between local contexts and global-scale processes (Shantz & Elliott, 2021; Gatrell & Elliott, 2014).

Health geography as a broad field of enquiry involve the use of several tools, techniques and methods to measure and explore health outcomes (Crooks et al., 2018; Gatrell & Elliott, 2014). For example, in quantitative health geography, researchers borrow ideas from medical geography and biomedical approach, rooted in positivism to provide answers to the occurrences, spread and spatial patterning of diseases and illnesses (Meade & Emch, 2010). Under this sub-field of health geography, tools and techniques including Geographic Information System, remote sensing and spatial modeling (see Gould, 2009), enable quantitative health geographers to measure and assess the complex relationships between health, environment, and society to ultimately inform evidence-based interventions and policies to improve public health outcomes (Rosenberg, 2017; Mayer, 2009).

Qualitative health geographers on the other hand seeks to understand how people and communities experience health within their surroundings and everyday lives (see Kearns & Milligan, 2020). They emphasize the importance of context, recognizing that health is influenced by the places people live, work, and play (Brown et al., 2017; Gatrell & Elliott, 2014). In using methods and tools such as in-depth interviews, focus group discussions, participant observation, photovoice, narrative analysis among other methods, qualitative health geographers are able to explore personal narratives, perceptions, and interpretations of health-related issues to uncover the complex relationship between socio-economic structures, cultural and ethical norms, political and physical environments (Rosenberg, 2016). This offers a nuanced and holistic approach to understanding health within its social, cultural, economic, political and environmental contexts, contributing valuable insights to public health research, policy, and practice (Curtis & Riva, 2010).

In this research thesis, I point out that the intersection between medical crowdfunding and privacy issues among campaigners, highlights how health determinants, including social networks, age, gender, income, race, ethnicity and sexuality (Igra, 2022; Kenworthy et al., 2020; Barcelos, 2019; Barcelos & Budge, 2019) shape both the demand for crowdfunding and the accessibility to health care services. Marginalized people, facing significant barriers in accessing health care may turn to medical crowdfunding as a means to fulfill their health care needs (Kenworthy, 2019a; Lukk et al., 2018). Nevertheless, the necessity to disclose personal information to inspire donations on crowdfunding websites raise privacy concerns (Schneiderhan & Lukk, 2023; Fritz, 2018). Additionally, the relationship between health geography and the motivations of medical and pre-medical students for global medical missions to Ghana is deeply connected. Health geography provides the critical framework for understanding where and why health disparities exist. The motivations of students drive their participation in addressing these disparities, and medical crowdfunding may serve as one of the practical means to finance their efforts. Together, these elements create an interrelated approach to exploring and understanding health outcomes among marginalized people and communities.

1.1.2. Crowdfunding

Crowdfunding has emerged as a popular and effective way of addressing diverse financial and social needs (Fraser et al., 2015). Through digital platforms people engage contributors, inspiring them to pledge, donate, or lend modest amounts toward specific causes (Park et al., 2020). With its minimal setup requirements and the potential for substantial fundraising, crowdfunding is experiencing a rapid rise in popularity (Hou et al., 2022). For instance, the global crowdfunding market was valued at US\$10.2 billion in 2018, and it's projected to grow by 16% annually, reaching US\$28.8 billion by 2025 (Wade, 2023). Lau et al. (2018) defines crowdfunding as "a novel method for funding, allowing an individual founder of for-profit, cultural, or social projects to request funding from many individuals (public crowd), often in return for a reward, as a donation, or potentially in return for equity." They further explain that crowdfunding is a form of social networking and uses the power of the internet and online communities to spread words about products or projects (Lau et al., 2018). Ethan Mollick (2014, p. 2) describes crowdfunding as "the efforts by entrepreneurial individuals and

groups-cultural, social, and for-profit-to fund their ventures by drawing on relatively small contributions from a relatively large number of individuals using the internet, without standard financial intermediaries."

Most definitions of crowdfunding emphasize that the campaigner presents their needs for review within the constraints of resources, time, and space (Parhankangas et al., 2019; Reddy & Tan, 2017). Campaigns are primarily conducted over the internet, often incorporating written narratives and audiovisuals to help potential donors fully understand the campaigner's needs and feel inspired to donate (Hossain & Oparaocha, 2017). Crowdfunding can be categorized into three main types: donation-based crowdfunding, reward-based crowdfunding, and investment-based crowdfunding (Bassani et al., 2019; Ahlers et al., 2015). Donation-based crowdfunding, the focus of my thesis research, is primarily used for personal or charitable fundraising purposes, such as soliciting funds for medical care (Proelss et al., 2021) and education (Horta et al., 2022). This type of crowdfunding relies on altruism, where donors contribute to the needs of others without expecting tangible benefits in return (Lee & Lehdonvirta, 2022; Dushnitsky & Marom, 2013). Campaigners launch donation-based campaigns on online platforms for personal causes, with medical expenses being the most common type of need campaigned for (Bluth, 2019).

1.1.3. Medical Crowdfunding

Medical crowdfunding has emerged as a response to health care inequalities in countries without universal health coverage, such as the United States (Paust, 2021), and those with public coverage for essential medical needs, like Canada (Saleh et al., 2020). Advanced search tools on crowdfunding platforms enable potential donors to browse and select campaigns based on specific health conditions, age, location, and/or recipient background (Young & Scheinberg, 2017). Typically, medical crowdfunding campaigns seek funding for acute and emergency medical procedures rather than assistance with managing chronic conditions, although both types are present on these platforms (Gustke, 2015). The benefits of medical crowdfunding include broadening funder participation in the health market, enhancing access to financial support, directing funds to neglected health issues, and promoting social engagement (Liu et al., 2022; Snyder, 2016a). Furthermore, medical crowdfunding has been demonstrated to

decrease personal bankruptcy rates, making it an important tool for addressing healthrelated financial burdens (Liu et al., 2022; Sisler, 2012).

GoFundMe stands out as the most popular website for medical crowdfunding globally (Siemens et al., 2021). GoFundMe has noted that around one third of all funds raised on its website are for medical causes (see Cerullo, 2019), labelling itself as the "leader in online crowdfunding" and organizing over 250,000 health-related campaigns launched annually (Snyder & Crooks, 2021). Wade (2023) explains that in 2021, GoFundMe was ranked among the world's 100 most influential companies in health care (Wade, 2023). This has particularly been evident during the recent COVID-19 pandemic where over 9 million donations raised USD \$625 million for related expenses (Popper & Lorenz, 2020).

Canadians are among those who are increasingly turning to medical crowdfunding to meet their private health care needs, and they have collectively raised millions of dollars to address requests made on tens of thousands of campaigns (Vassell et al., 2021; Lukk et al., 2018). The use of crowdfunding by Canadians for medical purposes is the primary focus of one of the analyses in my research thesis. I view medical crowdfunding as a growing phenomenon that may be breaching the privacy of Canadians as they face significant pressures to publicly disclose intimate details of information about their medical history, finances, personal and family lives to inspire donations. This becomes more crucial within the context of fundraising towards the health needs of others, which is my particular analytic focus. Canadians fundraising for others' health needs may risk disclosing private health information for which consent was not provided by the intended campaign recipient. My research specifically examines the roles and associated role responsibilities of how Canadian campaigners approach and safeguard the privacy of their recipients. This analysis aims to support the development of informational tools and resources that can better inform crowdfunders about privacy risks and safeguard while leveraging the benefits associated with medical crowdfunding.

A practice that is adjacent to medical crowdfunding is the use of crowdfunding platforms by people seeking to raise funds to cover the costs of medical education and training (Siemens et al, 2021; Lukk et al., 2018). While medical crowdfunding addresses a person or group's health-related needs, the intention of this type of educational

crowdfunding is to support a person or group's professional entry into the health care sector. Both of these crowdfunding practices hold implications, including ones that are ethical or equitable in nature, for health systems and the provision or receipt of care. Building from this, in a second analysis in this thesis I thematically explore the nuanced motivations behind medical and pre-medical students' future participation in global medical missions stated in educational crowdfunding campaigns, specifically focusing on the implications of pre-medical students' involvements and practices. I focus this analysis on Ghana so as to consider a single host country setting for medical missions, thereby allowing me to better compare the distinct motivations emerging from pre-medical versus medical students. I believe their involvement provides insight into how these motivations have implications for health equity and long-term sustainability in rural communities in Ghana.

1.2. Research Aims and Questions

One of the analyses in my thesis contributes to a larger study funded by the Social Science and Humanities Research Council of Canada (SSHRC), led by Dr. Jeremy Snyder, that is exploring privacy dimensions in crowdfunding. The goal of the larger study is to enrich the scholarly and public understanding of the ethical dimensions of privacy and control over personal information as it is experienced in the unique context of charitable crowdfunding. The study has aimed to give comparative insights into how decision-making around disclosing personal information is navigated by campaigners fundraising for themselves (those interviews were conducted by another graduate student) versus those fundraising on behalf of others (focus of my thesis research). Outside of contributing to this larger SSHRC-funded study, I have also used campaign narratives from GoFundMe to gain insight into the motivations of medical and premedical students seeking to participate in global medical missions and examine the health equity implications of pre-medical students' activities in particular on Ghana's local health care system. The aims of both analyses are distinct, one considering crowdfunding campaigns as a source of data for exploring matters of global health equity while the other exploring the privacy implications of the actual practice of medical crowdfunding.

Specifically, my thesis research is guided by the following questions:

- What roles and associated role responsibilities do Canadian campaigners take on in approaching and safeguarding the privacy of others when fundraising for their health needs; and
- What are the key motivations among medical and pre-medical students seeking to participate in global medical missions, as documented in educational crowdfunding campaigns, and what are the health equity implications of their participation in rural communities in Ghana?

1.3. Thesis Structure

Working closely with my supervisor, Dr. Valorie Crooks, and committee member, Dr. Jeremy Snyder, I conducted in-depth analyses of the research questions. The findings from these analyses were carefully prepared and formatted as papers for consideration by scholarly journals. These analyses form the basis of two of the chapters of this thesis. My thesis is structured around four chapters. The current chapter, Chapter 1, introduces and situates the research. Chapter 2 is dedicated to an extensive examination of the first research question, while Chapter 3 focuses on the second research question. Chapter 4 examines thematic linkages between these two analyses and discusses how each finding relates to the stated research questions. In the following sections, I provide an overview of the in-depth analyses covered in Chapters 2 and 3. Detailed methodological information is shared in each of these chapters and so is not repeated here.

1.3.1. "...information we didn't want to share got edited out": Qualitatively exploring the role responsibilities taken on by Canadians who crowdfund on behalf of someone else from a privacy perspective

Chapter 2 explores the roles and associated role responsibilities of Canadians who fundraise for others' health needs, particularly focusing on privacy concerns. Twelve qualitative semi-structured interviews were conducted with Canadians who had posted campaigns on the GoFundMe website between January and December 2023 to raise funds for someone else's health needs. The thematic analysis identified three key roles associated with the safeguard of funding recipients' privacy: managing initial content, navigating informational considerations, and facilitating ongoing connections. This analysis has been submitted to the *BMC Medical Ethics journal* for publication consideration. Overall, the analysis highlights the importance of respecting recipients'

privacy while engaging in medical crowdfunding and provides a meaningful contribution to the larger SSHRC-funded study. It further calls for the need to establish clear guidelines to support campaigners in navigating the ethical complexities of balancing fundraising goals with privacy protection.

1.3.2. "We will get to...assist the staff of the hospital": Comparatively exploring the motivations of pre-medical and medical students from Global North countries for seeking to participate in Ghanaian medical missions

Chapter 3 presents a comparative thematic analysis of crowdfunding campaign narratives of medical and pre-medical students from the GoFundMe website, focusing on their nuanced motivations for seeking to participate in global medical missions to Ghana. Out of 147 campaigns identified, 83 were from medical students and 64 from pre-medical students. Fifty campaigns from each group underwent comparative thematic analysis, revealing four common motivations: the motivation to select Ghana as a destination, the motivation to engage others for support, the motivation for planned activities, and the motivation to gain experience. While there is considerable existing literature by global health scholars that raises equity concerns regarding the roles medical missions play in destination countries and their potential to create harm, very little consideration has been given to the participation of pre-medical students in particular. One likely reason for this is their lack of an organized structure supporting their participation. Crowdfunding campaigns thus created an ideal source of insight into this not-well-networked group, allowing for comparative consideration against medical students who have been more deeply considered in relation to their participation in medical missions. The findings of this analysis not only address a critical knowledge gap, but also deepen our understanding about the complexities of motivations and how these have implications for health equity and sustainability on the local health care system in Ghana. The chapter has been submitted to the BMC Medical Education journal for review.

1.4. Significance of this Research

My thesis research offers new perspectives into two distinct groups of people: Canadian crowdfunding campaigners fundraising for others' health needs and medical and pre-

medical students seeking to participate in global medical missions to Ghana. Each group was included for unique reasons. First, understanding the practices and decision-making processes of Canadian campaigners in medical crowdfunding provides valuable insights into the roles and associated role responsibilities of campaigners in organizing and managing crowdfunding campaigns for others' health needs. The analysis deepens our understanding on the complexity of privacy protection and respecting recipients' autonomy as well as the need to directly engage with recipients during fundraising. Ultimately, the findings contribute to the development of ethical guidelines and tools to enhance the equity and integrity of medical crowdfunding practices.

Second, exploring the perspectives of medical and pre-medical students using campaign narratives from GoFundMe contributes to deepening our understanding of why people engage in global medical missions and how these motivations can have implications for health equity and sustainability. These findings of this analysis not only contribute to the academic understanding of students' motivations but also have practical implications for designing and implementing health care and humanitarian missions, with the overarching goals of promoting health equity and long-term sustainability. The design of the analysis demonstrates the deep potential to use crowdfunding campaigns as data sources to assist with learning from hard-to-reach people or groups.

1.5. Positionality and reflexivity

My positionality influenced my role as a junior researcher during the interview process (Muhammad et al., 2015; Bourke, 2014). Positionality pertains to when a researcher's status and pre-understanding significantly influence the research topic, access to participants and the quality of data collected (O'Connor, 2004). This is particularly relevant in cross-cultural and sensitive research where the placement of the researcher as an insider or outsider is important (Bayeck, 2022; Manohar et al., 2017). Studies have shown the advantages of an insider status, such as improved access, rapport building, and impact (Collins & McNulty, 2020; Stacy Blythe, 2012). On the other hand, Paechter (2013) argued that an outsider position challenges the researcher to make deeper observations to explore study topics more comprehensively.

Given my understanding of positionality and its implications, it was vital for me to be reflexive and critically self-reflect on how my role and social positioning may have shaped the research process and the quality of the data (O'Boyle, 2018). Throughout the interviews, I acknowledged my outsider position since I have not organized a crowdfunding campaign and have limited knowledge and understanding about the roles and procedures involved in organizing and managing a crowdfunding campaign. I approached each interview with an open mind, aiming to learn about the practice and decision-making processes of campaigners without being biased by my preunderstanding or prior knowledge of debates and discussions in the medical crowdfunding literature. To make respondents feel included and in control of their contribution to the conversation, I had to navigate different roles and positions during the interview process. This approach positively impacted their responses and the overall dynamics of the interview process (Li, 2022; Glas, 2021). Encouraging participants to engage freely in dialogue and ask questions, I discovered that they were more willing to discuss the study topic. Recognizing participants as experts on the topic allowed for exchange of ideas, reflecting the transitory and dynamic nature of power and knowledge during the interview.

With regard to the analysis presented in Chapter 3, I bring both insider and outsider knowledge. While I am not a pre-medical or medical student, I am from Ghana. My understanding of Ghana's health system and awareness of the roles that medical missions play in delivering care to marginalized citizens in particular certainly shaped my decision to focus the analysis on this host country. Related to this, I had existing knowledge of some of the health equity challenges that exist in Ghana. I thus had to be careful to be aware of instances that I was bringing my own thoughts regarding the usefulness or importance of medical mission in Ghana into the analysis.

Chapter 2.

"...information we didn't want to share got edited out": Qualitatively exploring the role responsibilities taken on by Canadians who crowdfund on behalf of someone else from a privacy perspective

2.1. Abstract

Background: Medical crowdfunding, a type of donation-based crowdfunding, is gaining prominence and enabling people to gather funds for medical treatments, surgeries, and other health needs. While this practice may democratize access to health care, it also raises ethical concerns, including breaching individuals' privacy. Despite these concerns, little consideration has been given specifically to the privacy-related issues that emerge when people crowdfund on behalf of others' health-related financial needs.

Methods: A study was undertaken to qualitatively explore the roles and associated role responsibilities of Canadians who crowdfund on behalf of others for their health needs. Twelve interviews were conducted with participants who had posted campaigns on the GoFundMe platform between January and December 2023. Interviews were transcribed, coded, and analyzed thematically.

Findings: Three key roles that had important privacy dimensions were identified: managing initial content, navigating informational considerations, and facilitating ongoing connections. Campaigners typically collaborated with recipients to craft compelling narratives, seek consent for sharing personal information, and provide regular updates to maintain donor engagement. Balancing campaign transparency with recipients' privacy concerns was crucial in the crowdfunding process.

Conclusion: Campaigners play pivotal roles in medical crowdfunding when doing so on behalf of funding recipients, including balancing the need for fundraising with the protection of recipients' privacy. Clear guidelines are needed to support campaigners in navigating the ethical complexities that emerge. Further research is needed to address existing knowledge gaps and enhance the ethical integrity of crowdfunding practices. **Keywords**: Medical Crowdfunding, Ethics, Privacy, GoFundMe, Canadians, Healthcare services, Qualitative research.

2.2. Background

Medical crowdfunding enables people to gather funds to cover expenses such as preventative care treatments, surgeries, and other health needs through crowd sourcing (1). Through online platforms like GoFundMe, people grappling with health-related costs can extend their reach for financial help to broad audiences in the hope of receiving substantial financial supports from family members, friends, and even unknown or distant donors (2-4). Medical crowdfunding has gained momentum not only in countries like the United States, where care costs are known to be high, but also in places with 'universal' healthcare systems such as Canada, where essential medical treatment has no cost at the point of care (5,6). For Canadians, medical crowdfunding serves as an additional avenue to fund extra treatments, specialized care, or unforeseen expenses linked to illness or injury that are not covered publicly (7). It is thus not surprising that GoFundMe has raised substantial funds for Canadian campaigns, including for health needs (8,9). In addition, the use of social media platforms such as Facebook and Instagram has made it even easier for people facing health challenges to amplify their stories by sharing crowdfunding campaigns to solicit financial support (10–12). Some have argued that medical crowdfunding has democratized access to health services, especially among marginalized populations, by lessening or doing away with personal financial barriers (13–15).

Despite the altruism enabled by medical crowdfunding (16), serious ethical concerns have emerged around matters related to fraud, equity, and autonomy (17). Concerns also exist among ethicists and others regarding the potential for crowdfunding to threaten the privacy of those featured in campaigns (18). Privacy generally entails, among other things, having control over the disclosure of personal information or knowledge about oneself to others (19,20). Publicly sharing personal details that would not typically be revealed to people beyond one's immediate social circle without permission may constitute a breach of privacy (17,21). In medical crowdfunding campaigns, achieving success often depends on effectively sharing detailed information about someone's health status with a wider audience, with the aim of fostering empathy among potential donors (7). In addition, crowdfunding platforms allow campaigners to

use photos and videos to share imagery related to their lives, health status, and financial needs (22). Campaigners are also urged to provide frequent updates on the advancement of their campaign and health situations to sustain donor involvement and inspire further donations (23,24). All of these instances present opportunities for campaigners to trade privacy protection for the potential to receive donations from others. The ethical issue of privacy protection may very well be further complicated when campaigners initiate and manage fundraising efforts on behalf of others, which is the situation we explore in the current analysis. It has been hypothesized that in some cases these campaigners might lack the authorization to disclose personal information about the intended recipient (7), though research knowledge is lacking.

When crowdfunding campaigns breach privacy, significant implications can emerge for those involved. These can include the erosion of trust, compromise of integrity, infringement upon recipients' rights, and loss of confidentiality (25). Moreover, risks such as unintended exposure can potentially lead to public judgment and even generate adverse consequences that can threaten family and friend relationships (26). These risks are particularly salient for those crowdfunding to support medical costs related to stigmatized needs, such as access to abortion care or trans-affirming treatment (27–29). Requests to fund such medical care can influence the public perception of those about whom campaign content is written and may expose them to negative responses from others (30). While the implications of privacy breeches such as these have been identified, little consideration has been given to if and how those campaigning on behalf of recipients take action to avoid such outcomes given the roles they play in creating the public-facing content.

Although ethicists and others have deepened our understanding of how and why privacy is an ethical issue in the practice of medical crowdfunding (7,17,31), there is a lack of primary research that documents how these concerns are navigated by campaigners. Further to this, much of the crowdfunding literature treats all campaigners as the same. Yet, as we pointed out above, those campaigning on behalf of others' health needs may have particular privacy considerations to address given the sensitivities involved in sharing personal health information. The current analysis takes an important step towards addressing this knowledge gap by presenting the findings of interviews conducted with Canadians who created health-related crowdfunding campaigns on behalf of a fundraising recipient. More specifically, we explore the key

roles that these campaigners take on, and their associated responsibilities in light of these roles, all of which have important privacy considerations. We believe that such insight provides important nuance not only to the existing literature on the ethics of medical crowdfunding, but also to calls put forth to better inform crowdfunders about the privacy risks associated with this practice and to create opportunities to enhance informed consent in the practice of crowdfunding (7,17).

2.3 Methods

This exploratory qualitative analysis contributes to a larger study seeking to comparatively understand how decision-making regarding the disclosure of personal information is conceptualized by Canadians participating in charitable crowdfunding campaigning. The larger study has involved conducting in-depth interviews with Canadians who are crowdfunding for themselves and those who are doing so on behalf of other recipients, with a focus on fundraising for health needs. The current analysis focuses on the latter interview dataset, allowing for a deep consideration of the practices that inform how crowdfunding on behalf of others may, or may not, raise privacy concerns. We focused on health-related campaigns because of their commonness and also because the nature of the information disclosed is more likely to be understood as private (e.g., diagnostic status, health updates, etc.) relative to, for example, campaigns to cover personal travel or wedding costs (17).

Upon receiving ethics approval, we used the GoFundMe crowdfunding platform to identify potential participants. This crowdfunding platform was selected to support recruitment because of its popularity and use among Canadians (32). Between January, 2023 and December, 2023, we used a webcrawler to extract information on newly posted campaigns and searched these records for ones that met our inclusion criteria. Given the exploratory nature of our study and the lack of population-level data regarding involvement in crowdfunding, the cut-off for data collection was guided by a temporal end point that reflected our available time and research funding resources rather than a target number of participants. We specifically sought campaigns on GoFundMe that were posted in Canada by an adult (i.e., 18+ years of age) who was not the intended funding recipient to support costs brought on by health needs. For campaigns that met these criteria, we searched the name of the campaigner to see if an e-mail address or social media profile that we could contact could be identified, which was a time intensive

process. In cases where contact information could be identified, e-mails or messages were sent to campaigners to solicit their consent for participation in an interview should they be age 18 or older. In total, we identified 176 publicly accessible profiles of people who fulfilled the inclusion criteria on Facebook to whom we sent direct messages. Because our messages were unsolicited and not coming from people in the known social networks of those with whom we were in touch with, they landed in a secondary 'message requests' inbox that significantly lessened their visibility. Seven people we were in touch with through Facebook agreed to participate in an interview. We found publicly accessible e-mail addresses for another 62 campaigners who met our inclusion criteria to whom we reached out. Five agreed to participate in an interview.

Campaigners who met the inclusion criteria and expressed interest in participating were provided with study information and consent details prior to the interview. Participants were also asked to provide and authenticate links to their crowdfunding campaign websites. This enabled us to confirm that potential participants had indeed organized a crowdfunding campaign. One-on-one in-depth interviews were conducted using Zoom video call in English and started by capturing participants' verbal consent. Interviews often lasted between 45 and 90 minutes and were conducted by the first author. A semi-structured interview guide was used (see supplementary file), which covered matters relating to: decision to crowdfund, results of crowdfunding campaign initiatives, privacy in everyday life, and privacy when crowdfunding. Interviews were digitally recorded with participant consent. After the interviews, participants received CAD\$25 e-gift cards to acknowledge their contribution to the study.

Digital interview recordings were transcribed verbatim in preparation for coding and thematic analysis. Thematic analysis involves identifying, analyzing, and interpreting patterns of meaning within qualitative data (33). As a first step, all authors independently reviewed four transcripts to deepen familiarity with the dataset and identify potential themes. Following this, the team met to discuss analytic directions, using investigator triangulation to confirm the scope and scale of dominant themes. Concepts informing these dominant themes were then identified, which were used to form the development of a coding scheme that also drew from the study objective and interview prompts. Manual coding in a word processing program ensued using the scheme, which was done by the first author. Upon completion of the coding, data relating to the current analysis were extracted and again shared with the team. Following independent review,

another team meeting was held to confirm interpretation and the scope of the analytic focus. Consistent with thematic analysis, literature relating to the analytic focus reported herein was reviewed at this point to support opportunities for contextualizing the findings and their novelty. Overall, the analytic process led to the identification of three primary roles taken on by those crowdfunding for someone else's health needs, which we discuss in detail in the section that follows. Throughout this discussion we integrate verbatim quotes from participants to support trustworthiness and authenticity of interpretation.

2.4 Findings

Twelve Canadians who had crowdfunded on behalf of a fundraising recipient agreed to participate in an interview for this exploratory study. All participants resided in the Canadian provinces of British Columbia (67%) and Ontario (33%). Eleven identified as women and one as a man, with ages spanning from 22 to 64 years. The requested amounts from the campaigns using GoFundMe ranged from CAD\$5,000 to \$100,000, with four participants meeting their campaign targets. The highest amount raised in a single campaign was CAD\$37,843. Participants' education levels varied from high school to a graduate degree, and family annual incomes ranged from CAD\$30,000 to CAD\$160,000. Campaigners sought funding for various needs, including: covering medical expenses such as cancer treatment and surgeries; medical travel within Canada; home repairs and maintenance to support needed accommodations; as well as supplementing income for recipients unable to work due to their health.

Through thematic analysis we identified three key roles that crowdfunders took on when campaigning on behalf of someone else that have implicit and explicit privacy dimensions. These roles, which are explored in this section, were: managing initial content; navigating informational considerations; and facilitating ongoing connections. All participants reported undertaking each these roles when crowdfunding on behalf of a campaign recipient. The 'managing initial content' role related to tasks undertaken to create and post a campaign. The 'navigating informational considerations' role pertained to tasks associated with managing the balance between addressing privacy concerns and creating appealing campaigns. Finally, the 'facilitating ongoing connections' role related to the tasks associated with updating campaign contents with narratives to connect people and identifying key donors and audiences across diverse networks and

encouraging sharing. In the sub-sections that follow, we expand on these roles through discussing the primary responsibilities associated with each that were identified through thematic analysis of the twelve interviews conducted with participants. Though we discuss these roles separately, we acknowledge there are interconnections and explore some in the discussion section.

2.4.1 Managing Initial Content

All participants highlighted the importance of creating and posting relatable crowdfunding campaign narratives to garner both financial and emotional support from others. The process of crafting appealing narratives when creating a campaign involved the careful selection of information including photos, videos, and images. This role responsibility was mostly undertaken in collaboration with the campaign recipient and sometimes also close others, such as spouses and family members. Participants explained that this collaborative process was reassuring as it ensured that campaign narratives accurately represented the views and personal stories of recipients, including personal health details. A 23-year-old campaigner explained: "*…I drafted a big story, and then information we didn't want to share got edited out."* Taking leadership of managing initial campaign content illustrated the nuanced nature of engagement with recipients from the outset, with numerous participants emphasizing the importance of respecting the autonomy and preferences of recipients and obtaining their consent to post information when campaigning on behalf of someone else's health needs.

An important role responsibility associated with managing the initial campaign content was the identification of financial needs and setting a campaign goal. Part of this involved determining the extent of the financial request. For example, if the recipient had medical care needs but was also unable work due do their health, participants grappled with determining if the financial request would focus only on the direct medical care costs or if it would also integrate the wider financial gaps brought on by not working. There was no single strategy most commonly used among participants to determine the scope of the financial request to be made from the outset of the campaign. What was common, however, was some engagement with the recipient, which may also have involved others in their networks. Participants commonly had close personal relationships with recipients, such as "...I was raising money for my best friend's family..." or "...it was for my friend and her husband...", and these connections drove

participants' desires to present a fulsome and well justified campaign financial goal from the outset in the hopes of success.

2.4.2 Navigating Informational Considerations

Seeking consent and approval in the context of sharing personal information on behalf of recipients was a critical role responsibility discussed by participants. This was rooted in participants' shared recognition of the rights of recipients to control their personal information and make informed decisions about how it was shared and presented. As one participant explained, "...I would hope that anyone who crowdfunds on another person's behalf has their permission and their consent." Recognizing this, participants highlighted making needed adjustments and edits throughout the lifecycle of the campaign (i.e., initial content, campaign updates, shares on social media, etc.) to align with the recipient's approach to protecting their privacy. This was reflected in the following viewpoint shared by a 43-year-old campaigner: "...when it came to sensitive information, we made edits, and we took it back." A common motivation for crowdfunding on behalf of a recipient was to lessen any additional burden placed on the recipient due to their health and medical care contexts. It was thus not surprising that the extent to which detailed and/or ongoing approvals were sought for information updates throughout the campaign's lifecycle varied across participants given recipients' fluctuating abilities and availabilities.

Participants touched on the need to balance privacy concerns against creating appealing, information rich campaigns as an important matter. This role responsibility was influenced by both the need to garner support from donors and safeguard recipients' private information. The emphasis on "...giving enough information that they feel like they have empathy for the family, but not so much that people feel like they have empathy for the family, but not so much that people feel like they have a reason to investigate these people's lives" highlighted the importance of striking a balance between transparency and discretion. Recognizing this need for balance, some participants reported focusing on broadly discussing health information rather than getting into diagnostic details, for example. Overall, participants emphasized the need to honor privacy-driven requests about information sharing made by recipients over the need to create content that would inspire donations. By respecting these boundaries, they could preserve trust in their interactions with recipients.

2.4.3 Facilitating Ongoing Connections

Participants highlighted their role responsibility to regularly update campaigns to keep potential or existing donors engaged with, connected to, and informed about the recipient and their story. They understood that keeping donors informed and involved was important not only for retaining interest, but also for developing stronger relationships that might have led them to share campaigns via their social networks. A participant explained that "...every time we went to update it, it was just so that the more people understood what he was going through, the more that people felt familiar with him and what was going on." Participants also recognized the importance of expressing gratitude towards donors through updates: "As a thank you, we wanted to update them on his progress and status." There was, however, strong acknowledgement that updates contributed to donations. As one participant explained, "...before I had a big description, I wasn't getting as many donations. Once I added a big description and put updates and shared information about the family, donations did improve." As noted in this quote, while updates presented opportunities to facilitate connection with and inform the decision-making of donors, they also served as content where privacy trade-offs needed to be carefully navigated.

According to participants, identifying target donors and audiences across social media networks and encouraging sharing was strategically indispensable. Participants discussed engaging with both familiar and new donors and audiences to amplify the potential success of the campaign. This sentiment was shared by a 49-year-old campaigner who explained: "...*I changed my [social media] settings to public...I wanted it to be [reaching] maybe a stranger that felt moved by the story and had the means to donate.*" Another explained that "...*I was very intentional about it. I reached out to people I knew who were active on social media.*" A small number of participants maintained a more intimate and personalized approach to outreach, "...*we just kept it to our networks. I wanted it to be kind of personal.*" Overall, participants' experiences emphasized that such flexibility and intentionality when crowdfunding for someone else's health needs was integral to effectively engaging with various audiences. Effective audience engagement, in turn, was often necessary to achieve the fundraising goal and balanced with effectively facilitating connection with the recipient.

2.5 Discussion

Thematic analysis of the twelve interviews has shown that organizing a crowdfunding campaign for someone else's health needs includes three distinct roles: managing initial content, navigating informational considerations, and facilitating ongoing connections. A number of responsibilities are associated with each of these roles, which are synthesized in Table 1. These roles have many important interconnections that are underscored in the findings shared above. For example, role responsibilities relating to navigating informational considerations. Decisions made related to managing initial content with regard to the amount of information shared about the recipient shaped the depth of ongoing connections to donors and others interacting with the campaign that was possible. In the remainder of this section, we contextualize the analytic findings in relation to the existing literature on crowdfunding in addition to considering directions for future research and study strengths and limitations.

This analysis has shown how at their core, medical crowdfunding campaigns created on behalf of a known recipient rely on careful planning and collaboration. Campaigners collaborate with recipients to plan and craft narratives, select photos and visuals to articulate the campaign's purpose – all of which are viewed by campaigners to be very important components of crowdfunding campaigns (34,35). Identifying recipients' financial needs and setting campaign goals are another key responsibility that involves careful planning and collaboration. Concurrently, as recipients may choose to forgo privacy in order to maximize fundraising, campaigners facilitate achieving informed consent from recipients regarding the administration of the campaign. Ultimately, navigating informational considerations requires campaigners to take on a fiduciary role where they seek input from and then act in the best interests of recipients (36). This further requires striking a careful balance between protecting recipients' privacy and providing sufficient information to inspire donations.

While the navigation of the balance between protecting privacy and campaign success has been previously discussed in the ethical literature on medical crowdfunding more generally (5,7,17,37), the current study has provided illustrations of when and how this occurs in contexts where people are campaigning on behalf of others. Similarly, in

facilitating ongoing connections, a collaborative approach was common to carefully plan and identify target audiences or donors and limit the disclosure of sensitive information during updates and sharing across diverse social media networks. It is important to point out that not all recipients know when crowdfunding campaigns are posted on their behalf, which has been underscored by the literature examining fraud in relation to this practice (5,38). Although an inclusion criterion in the current study was not ensuring that recipients knew about campaigns that were posted on their behalf, it was the case that in all instances campaigners collaborated with known recipients who were closely positioned in their family or friend networks. Further research should meaningfully explore differences in how the fiduciary relationship between campaigners and recipients is enacted when recipients know about campaigns versus when they do not.

It is noteworthy that the roles identified in this analysis have not been extensively explored in the existing literature on donation-based crowdfunding. However, we acknowledge that existing research has elucidated various responsibilities undertaken by campaigners more generally during crowdfunding. For example, prior studies have shown how the success of crowdfunding campaigns often depends on creating appealing narratives and posting images that resonates with potential donors (34,35,39-44). In the current analysis, such activity is conceptualized as a role responsibility related to the managing initial content role undertaken by those campaigning on behalf of someone else. Zheng and Jiang (41), reviewed patients' stories, emotional appeals, campaign clarity, and narrative structure and their positive impacts in medical crowdfunding campaigns (41). Liu et al (43) analyzed how approaches such as the use of direct gaze in campaign images and storytelling approaches influence the success of crowdfunding for medical purposes (43,45). These prior studies align with our findings to further confirm that the responsibility of creating appealing narratives and posting imagery is crucial in the medical crowdfunding landscape. This very responsibility has been critically examined in the ethics literature in particular because, in many ways, the trade-off between sharing personal details and images to gain donations threatens privacy in potentially harmful ways (46). What the current analysis has demonstrated is an awareness of this potential harm by those crowdfunding on behalf of a recipient and a desire to mitigate it through collaboration.

Crowdfunders campaigning on behalf of others must navigate complex ethical issues, including privacy protection and respecting recipients' autonomy, while also seeking to raise donations and help the recipient (5,7,17,46). Platforms such as GoFundMe do not provide tailored campaign submission guidelines and or content development tools that are specific for those campaigning on behalf of others. Meanwhile, this analysis has shown that there are particular roles and role responsibilities taken on by these campaigners that may benefit from particular consideration. Training support for these campaigners along with privacy guidelines would be highly useful, as would educational initiatives that raise awareness about privacy risks and develop informational tools targeting both campaign creators and donors. As noted by others, these informational interventions should emphasize explicit consent and appropriate disclosure of information (47,48). The current analysis serves as a reminder to consider the distinct informational needs of particularly situated campaigner groups in the development of such tools.

The findings of this exploratory study point to several important directions for future research. First, much research on crowdfunding explores this practice through analyzing data gathered from campaigns (e.g.7,8,32,49). While such analyses have garnered incredibly important insights about equity and ethical issues associated with this practice and its outcomes, there is much to learn from directly engaging with people involved in crowdfunding as campaigners, recipients, and donors, among others. The nuanced roles and role responsibilities identified in the current analysis serve as a case in point. There is much opportunity for future research to further engage directly with involved groups. Second, this analysis provides an important illustration of the value of considering differences within crowdfunding stakeholder groups. A core premise of this analysis is that crowdfunding on behalf of someone else is fundamentally different from crowdfunding for oneself, yet much existing research on crowdfunding does not differentiate between types of campaigners. Most differentiation that does exist focuses on campaign types, such as the particular needs of those crowdfunding for cancer care (50,51), paediatric neurology (52), or Lyme disease diagnosis and treatment (8). Finally, another critical issue in need of further research consideration relates to the ethical dilemmas inherent in medical crowdfunding. Despite the existence of literature on this topic (e.g. 17, 37, 53, 54), we point out the necessity to further address the unforeseen complexity of ethical concerns when crowdfunding for others' health needs. Such

research can ultimately inform the creation of clearer guidelines and/or regulatory measures in relation to crowdfunding based on trust, integrity, and the preservation of recipients' rights and privacy (5,7,46).

Limitations

We acknowledge the following limitations in our study. Firstly, the use of Zoom video calls for interviews rather than face-to-face interviews limited our ability to observe non-verbal signals including body language and gestures. This may have negatively impacted rapport building and the sharing of detailed experiences (55). However, the use of Zoom allowed us to interact with participants from anywhere in Canada, which is a benefit that outweighed any potential limitations associated with using this medium. Another limitation is that due to the lack of population-level data availability, we do not know how representative the participants we spoke with are of those who crowdfund on behalf of others. For example, significantly more people who identified as women participated in interviews than men. This may be due to women's stronger presence on social media sites such as Facebook (56), or may be a reflection of who crowdfunds for others. However, as this study is qualitative, we have not sought to have a representative sample and have instead provided context about participants that can facilitate transferability, which is an indicator of rigour in qualitative research.

2.6 Conclusions

This exploratory qualitative study has shown the various roles and associated role responsibilities campaigners undertake when crowdfunding to meet others' health needs. Through thematic analysis, we identified three key roles they play: managing initial content, navigating informational considerations, and facilitating ongoing connections. These roles intersect and collectively show the importance of collaboration in respecting recipients' privacy preferences when crowdfunding on behalf of someone. The scope and scale of these roles also highlight the complexity associated with navigating privacy considerations. This complexity calls for careful planning, particularly if fund recipients' autonomy and privacy-related requests are to be honoured. These findings meaningfully contribute to the existing literature on the ethics of medical crowdfunding, particularly by providing insights into the nuanced dynamics of campaigners' roles and responsibilities and highlighting the benefit of giving dedicated

research attention to particular campaigner groups. Significant knowledge gaps remain about crowdfunding that, if appropriately addressed, can support the development of informational tools and resources that can guide campaigners, recipients, donors and other stakeholders involved to enhance the ethical nature of this practice and ultimately the equity of outcomes.

Declarations

Ethics approval and consent to participate

Ethics approval was provided by Simon Fraser University's Office of Research Ethics (protocol 30000444). Informed consent was provided by all participants.

Consent for publication

Not applicable.

Availability of data and materials

To maintain participants' privacy and anonymity, interview transcripts from this study are not publicly available.

Competing interests

The authors declare that they have no competing interests.

Authors' contributions

All authors contributed to developing this study. JS and VAC conceptualized the study and received funding. BLNB conducted data collection. BLNB led data analysis with VAC and JS contributing triangulated perspectives. BLNB led drafting the manuscript with detailed input and editing support from VAC. JS edited the manuscript. All authors have approved the manuscript.

Funding declaration

This study was funded by the Social Sciences and Humanities Research Council of Canada (funding award # 435-2021-0429).

2.7 Tables and Additional Files

Roles	Role Responsibilities
Managing Initial	Creating and posting crowdfunding campaign narratives on a selected platform
Content	Identifying financial needs and setting a campaign goal
Navigating	Engaging with recipients to gain approval for content shared in campaigns, including
Informational	in updates
Considerations	Balancing privacy concerns against creating an appealing campaign
Facilitating	Updating campaign contents with narratives to connect people
Ongoing	Identifying key donors and audiences across diverse networks to encouraging sharing
Connections	

 Table 1.
 Roles and Their Associated Role Responsibilities

2.8 References

- 1. Bassani G, Marinelli N, Vismara S. Crowdfunding in healthcare. J Technol Transf [Internet]. 2019 Aug 1 [cited 2024 Apr 4];44(4):1290–310. Available from: https://doi.org/10.1007/s10961-018-9663-7
- Gonzales AL, Kwon EY, Lynch T, Fritz N. "Better everyone should know our business than we lose our house": Costs and benefits of medical crowdfunding for support, privacy, and identity. New Media Soc [Internet]. 2018 Feb 1 [cited 2024 Apr 4];20(2):641–58. Available from: https://doi.org/10.1177/1461444816667723
- 3. Bashir I, Banze R. Crowdfunding: The Story of People. Project Nile; 2020. 329 p.
- Lublóy Á. Medical crowdfunding in a healthcare system with universal coverage: an exploratory study. BMC Public Health [Internet]. 2020 Dec [cited 2024 Apr 4];20(1):1672. Available from: https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-020-09693-3
- 5. Snyder J. Crowdfunding FOR MEDICAL CARE: *Ethical Issues in an Emerging Health Care Funding Practice*. Hastings Cent Rep [Internet]. 2016 Nov [cited 2023 Oct 22];46(6):36–42. Available from: https://onlinelibrary.wiley.com/doi/10.1002/hast.645
- 6. Lukk M, Schneiderhan E, Soares J. Worthy? Crowdfunding the Canadian Health Care and Education Sectors. Can Rev Sociol Can Sociol [Internet]. 2018 Aug

[cited 2024 Apr 4];55(3):404–24. Available from: https://onlinelibrary.wiley.com/doi/10.1111/cars.12210

- Snyder J, Mathers A, Crooks VA. Fund my treatment!: A call for ethics-focused social science research into the use of crowdfunding for medical care. Soc Sci Med [Internet]. 2016 Nov [cited 2023 Oct 21];169:27–30. Available from: https://linkinghub.elsevier.com/retrieve/pii/S0277953616305317
- 8. Vassell A, Crooks VA, Snyder J. What was lost, missing, sought and hoped for: Qualitatively exploring medical crowdfunding campaign narratives for Lyme disease. Health (N Y) [Internet]. 2021 Nov 1 [cited 2023 Sep 10];25(6):707–21. Available from: https://doi.org/10.1177/1363459320912808
- 9. GoFundMe. GoFundMe in Canada [Internet]. GoFundMe Stories. 2017 [cited 2024 Apr 3]. Available from: https://medium.com/gofundme-stories/gofundme-in-canada-7512972a830
- 10. Kubheka BZ. Bioethics and the use of social media for medical crowdfunding. BMC Med Ethics [Internet]. 2020 Oct 6 [cited 2024 Mar 19];21(1):96. Available from: https://doi.org/10.1186/s12910-020-00521-2
- 11. Erubami J, Tebekaemi P, Egbon K. Perception of Online Medical Crowdfunding Posts among Social Media Users in Nigeria. 2023 Jan 2;8:2023.
- Zhou J, Yao Y, Li Y, Wu J, Liu Q. Medical Crowdfunding Campaign Sharing Behaviour on Mobile Social Media: The Social Influence Perspective. Httpsservicesigi-Glob [Internet]. 1AD Jan 1 [cited 2024 Apr 4]; Available from: https://www.igi-global.com/article/medical-crowdfunding-campaign-sharingbehaviour-on-mobile-social-media/309988
- Kenworthy NJ. Crowdfunding and global health disparities: an exploratory conceptual and empirical analysis. Glob Health [Internet]. 2019 Nov [cited 2024 Mar 24];15(S1):71. Available from: https://globalizationandhealth.biomedcentral.com/articles/10.1186/s12992-019-0519-1
- Saleh SN, Ajufo E, Lehmann CU, Medford RJ. A Comparison of Online Medical Crowdfunding in Canada, the UK, and the US. JAMA Netw Open [Internet]. 2020 Oct 26 [cited 2024 Apr 4];3(10):e2021684. Available from: https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2772160
- Moysidou K, Cohen Chen S. Inducing collective action intentions for healthcare reform through medical crowdfunding framing. Soc Sci Med [Internet]. 2023 Sep 1 [cited 2024 Apr 4];333:116090. Available from: https://www.sciencedirect.com/science/article/pii/S0277953623004471
- Medical crowdfunding and the virtuous donor Moore 2019 Bioethics Wiley Online Library [Internet]. [cited 2024 Apr 4]. Available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/bioe.12527?casa_token=V6M5a2 TSpX4AAAAA%3AV0neH5NI610L503YGwuNuUNBOIbKsEmOx4JAXYhaT-NZ522_Ns-xrtIVUBaWfyRkUdw088TdYR4d9Q

- 17. Snyder J, Crooks VA. Is there room for privacy in medical crowdfunding? J Med Ethics [Internet]. 2021 Dec [cited 2023 Sep 6];47(12):e49–e49. Available from: https://jme.bmj.com/lookup/doi/10.1136/medethics-2020-106676
- Hossain M, Oparaocha GO. Crowdfunding: Motives, Definitions, Typology and Ethical Challenges. Entrep Res J [Internet]. 2017 Apr 1 [cited 2024 Apr 12];7(2). Available from: https://www.degruyter.com/document/doi/10.1515/erj-2015-0045/html
- 19. Moore AD. Privacy: Its Meaning and Value. Am Philos Q [Internet]. 2003 [cited 2024 Apr 12];40(3):215–27. Available from: https://www.jstor.org/stable/20010117
- Parent WA. Recent Work on the Concept of Privacy. Am Philos Q [Internet].
 1983 [cited 2024 Apr 12];20(4):341–55. Available from: https://www.jstor.org/stable/20014016
- 21. Parent WA. Privacy, Morality, and the Law. In: Privacy. Routledge; 2001.
- 22. Berliner LS, Kenworthy NJ. Producing a worthy illness: Personal crowdfunding amidst financial crisis. Soc Sci Med [Internet]. 2017 Aug 1 [cited 2024 Mar 25];187:233–42. Available from: https://www.sciencedirect.com/science/article/pii/S0277953617300886
- 23. Choy K, Schlagwein D. Crowdsourcing for a better world: On the relation between IT affordances and donor motivations in charitable crowdfunding. Hasan and Henry Linger H, editor. Inf Technol People [Internet]. 2016 Jan 1 [cited 2024 Apr 4];29(1):221–47. Available from: https://doi.org/10.1108/ITP-09-2014-0215
- Wardell S, Withey-Rila C. A critical analysis of trans-visibility through online medical crowdfunding. Soc Sci Med [Internet]. 2024 Mar 1 [cited 2024 Apr 4];345:116682. Available from: https://www.sciencedirect.com/science/article/pii/S0277953624001266
- Seh AH, Zarour M, Alenezi M, Sarkar AK, Agrawal A, Kumar R, et al. Healthcare Data Breaches: Insights and Implications. Healthcare [Internet]. 2020 May 13 [cited 2024 Apr 4];8(2):133. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7349636/
- 26. Debatin B, Lovejoy JP, Horn AK, Hughes BN. Facebook and Online Privacy: Attitudes, Behaviors, and Unintended Consequences. J Comput-Mediat Commun [Internet]. 2009 Oct [cited 2024 Apr 12];15(1):83–108. Available from: https://academic.oup.com/jcmc/article/15/1/83-108/4064812
- 27. Snyder J, Grewal A. Abortion-related crowdfunding post-Dobbs. Perspect Sex Reprod Health [Internet]. [cited 2024 Apr 12];n/a(n/a). Available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/psrh.12249
- 28. Zenone MA, Snyder J. Crowdfunding abortion: an exploratory thematic analysis of fundraising for a stigmatized medical procedure. BMC Womens Health [Internet]. 2020 Dec [cited 2024 Apr 12];20(1):90. Available from:

https://bmcwomenshealth.biomedcentral.com/articles/10.1186/s12905-020-00938-2

- Solotke MT, Brussel Faria N, Karim H, Roy S, Ross JS, Cron J. Exploring crowdfunding campaigns for abortion services. Contraception [Internet]. 2020 Jul 1 [cited 2024 Apr 12];102(1):18–22. Available from: https://www.sciencedirect.com/science/article/pii/S0010782420300615
- 30. Fritz N, Gonzales A. Privacy at the Margins| Not the Normal Trans Story: Negotiating Trans Narratives While Crowdfunding at the Margins. Int J Commun [Internet]. 2018 Mar 1 [cited 2024 Apr 3];12(0):20. Available from: https://ijoc.org/index.php/ijoc/article/view/7049
- 31. Snyder J. Crowdfunding FOR MEDICAL CARE: Ethical Issues in an Emerging Health Care Funding Practice. Hastings Cent Rep [Internet]. 2016 [cited 2024 Mar 19];46(6):36–42. Available from: https://onlinelibrary.wiley.com/doi/abs/10.1002/hast.645
- 32. Doran C, Crooks V, Snyder J. Qualitatively exploring the intersection of health and housing needs in Canadian crowdfunding campaigns. BMC Public Health [Internet]. 2022 Jan 26 [cited 2023 Sep 10];22(1):176. Available from: https://doi.org/10.1186/s12889-022-12599-x
- Clarke V, Braun V. Thematic analysis. J Posit Psychol [Internet]. 2017 May 4 [cited 2024 Mar 11]; Available from: https://www.tandfonline.com/doi/full/10.1080/17439760.2016.1262613
- 34. Xu K, Wang X. "Kindhearted People, Please Save My Family": Narrative Strategies for New Media Medical Crowdfunding. Health Commun [Internet]. 2020 Nov 9 [cited 2024 Mar 19]; Available from: https://www.tandfonline.com/doi/full/10.1080/10410236.2019.1654173
- 35. Tanner C, Munsie M, Sipp D, Turner L, Wheatland C. The politics of evidence in online illness narratives: An analysis of crowdfunding for purported stem cell treatments. Health (N Y) [Internet]. 2019 Jul 1 [cited 2024 Mar 21];23(4):436–57. Available from: https://doi.org/10.1177/1363459319829194
- 36. Sear MC. Ethical Issues in Use of Crowdfunding to Finance Healthcare.
- 37. Dressler G, Kelly SA. Ethical implications of medical crowdfunding: the case of Charlie Gard. J Med Ethics [Internet]. 2018 [cited 2024 Mar 21];44(7):453–7. Available from: https://www.jstor.org/stable/26879762
- Zenone M, Snyder J. Fraud in Medical Crowdfunding: A Typology of Publicized Cases and Policy Recommendations. Policy Internet [Internet]. 2019 [cited 2023 Nov 30];11(2):215–34. Available from: https://onlinelibrary.wiley.com/doi/abs/10.1002/poi3.188
- 39. Paust S. "Struggling Right Along With You": Precarity and the Power of Medical Crowdfunding Campaign Narratives. Connect J Lang Media Cult [Internet]. 2021

Dec 16 [cited 2024 Mar 19];2(1):30–41. Available from: https://connectionsjournal.ca/index.php/connections/article/view/37

- 40. Campeau K, Thao Y. "It Makes Everything Just Another Story": A Mixed Methods Study of Medical Storytelling on GoFundMe. Tech Commun Q [Internet]. 2023 Jan 2 [cited 2024 Mar 19]; Available from: https://www.tandfonline.com/doi/full/10.1080/10572252.2022.2047792
- Zheng L, Jiang L. Influence of Narrative Strategies on Fundraising Outcome: An Exploratory Study of Online Medical Crowdfunding. J Soc Comput [Internet].
 2022 Dec [cited 2024 Mar 19];3(4):303–21. Available from: https://ieeexplore.ieee.org/document/10054636/
- 42. Paulus TM, Roberts KR. Crowdfunding a "Real-life Superhero": The construction of worthy bodies in medical campaign narratives,. Discourse Context Media [Internet]. 2018 Mar 1 [cited 2023 Nov 27];21:64–72. Available from: https://www.sciencedirect.com/science/article/pii/S2211695817301101
- 43. Liu Y, Yu S, Ravichandran T. DIRECT GAZE, STORY NARRATION, AND ONLINE MEDICAL CROWDFUNDING OUTCOMES.
- 44. Fulton HJ. GoFundTransitions: Narratives of Transnormativity and the Limits of Crowdfunding Livable Futures.
- 45. Guo Q, Zhou S, Wu Y, Peng Z, Ma X. Understanding and Modeling Viewers' First Impressions with Images in Online Medical Crowdfunding Campaigns. In: CHI Conference on Human Factors in Computing Systems [Internet]. New Orleans LA USA: ACM; 2022 [cited 2024 Mar 26]. p. 1–20. Available from: https://dl.acm.org/doi/10.1145/3491102.3501830
- Snyder J. Appealing to the Crowd: The Ethical, Political, and Practical Dimensions of Donation-Based Crowdfunding. Oxford University Press; 2023. 273 p.
- 47. Coutrot IP, Smith R, Cornelsen L. Is the rise of crowdfunding for medical expenses in the United Kingdom symptomatic of systemic gaps in health and social care? J Health Serv Res Policy [Internet]. 2020 Jul 1 [cited 2024 Mar 24];25(3):181–6. Available from: https://doi.org/10.1177/1355819619897949
- 48. Neuwelt-Kearns C, Baker T, Calder-Dawe O, Bartos AE, Wardell S. Getting the crowd to care: Marketing illness through health-related crowdfunding in Aotearoa New Zealand. Environ Plan Econ Space [Internet]. 2024 Feb 1 [cited 2024 Mar 24];56(1):311–29. Available from: https://doi.org/10.1177/0308518X211009535
- Snyder J, Zenone M, Crooks V, Schuurman N. What Medical Crowdfunding Campaigns Can Tell Us About Local Health System Gaps and Deficiencies: Exploratory Analysis of British Columbia, Canada. J Med Internet Res [Internet]. 2020 May 22 [cited 2024 Apr 1];22(5):e16982. Available from: https://www.jmir.org/2020/5/e16982

- Snyder J, Zenone M, Caulfield T. Crowdfunding for complementary and alternative medicine: What are cancer patients seeking? PLOS ONE [Internet].
 2020 Nov 20 [cited 2024 Apr 1];15(11):e0242048. Available from: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0242048
- Rajwa P, Hopen P, Wojnarowicz J, Kaletka J, Paszkiewicz I, Lach-Wojnarowicz O, et al. Online Crowdfunding for Urologic Cancer Care. Cancers [Internet]. 2022 Aug 25 [cited 2024 Apr 1];14(17):4104. Available from: https://www.mdpi.com/2072-6694/14/17/4104
- 52. Snyder J, Turner L. Crowdfunding for stem cell-based interventions to treat neurologic diseases and injuries. Neurology [Internet]. 2019 Aug 6 [cited 2024 Apr 1];93(6):252–8. Available from: https://www.neurology.org/doi/abs/10.1212/WNL.000000000007838
- Livingstone A, Servais L, Wilkinson DJC. The ethics of crowdfunding in paediatric neurology. Dev Med Child Neurol [Internet]. 2023 [cited 2024 Mar 21];65(4):450– 5. Available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/dmcn.15442
- 54. Jin P. Medical crowdfunding in China: empirics and ethics. J Med Ethics [Internet]. 2019 Aug 1 [cited 2023 Sep 10];45(8):538–44. Available from: https://jme.bmj.com/content/45/8/538
- 55. Irvine A. Duration, Dominance and Depth in Telephone and Face-to-Face Interviews: A Comparative Exploration. Int J Qual Methods [Internet]. 2011 Sep 1 [cited 2024 Mar 26];10(3):202–20. Available from: https://doi.org/10.1177/160940691101000302
- 56. NW 1615 L. St, Washington S 800, Inquiries D 20036 U 419 4300 | M 857 8562 | F 419 4372 | M. Social Media and News Fact Sheet [Internet]. Pew Research Center's Journalism Project. [cited 2024 Mar 27]. Available from: https://www.pewresearch.org/journalism/fact-sheet/social-media-and-news-factsheet/

Chapter 3.

"We will get to...assist the staff of the hospital": Comparatively exploring the motivations of premedical and medical students from Global North countries for seeking to participate in Ghanaian medical missions

3.1 Abstract

Background: Global medical missions deliver essential health care services to equityseeking communities, and particularly in the Global South. While medical missions can improve access to care, they also raise ethical concerns, such as reinforcing dependencies on Global North countries and undermining local health systems. Many medical missions are heavily reliant on volunteers from Global North countries. A wellstudied volunteer group are medical students, with some studies raising questions about their readiness to support care delivery in such contexts. A less well considered group are pre-medical students enrolled at colleges and universities in Global North countries who do not yet have any formal medical training.

Methods: This study comparatively explored the motivations of medical and pre-medical students from the Global North seeking to participate in medical mission trips to Ghana. We analyzed 100 publicly available crowdfunding campaign narratives from the GoFundMe platform. They were posted by medical (n=50) and pre-medical (n=50) students seeking funds for missions in Ghana over a five-year period, between 2018 and 2023. Comparative thematic analysis was employed to identify and compare motivations between medical and pre-medical students.

Results: Both medical and pre-medical students were motivated to participate by a blend of factors that included a desire to make a positive impact in Ghanaian communities. Pre-medical students were particularly motivated by the prospect of enhancing their medical school applications, while medical students aimed to meet medical school course requirements and gain practical clinical experience. Pre-medical students expressed greater interest in participating in social or development projects

while in Ghana in addition to delivering health care and were more likely to express religious motivations than were medical students.

Conclusion: The findings raise important ethical and equity concerns for medical mission host countries such as Ghana. They include the appropriateness of the intended scope of practice for pre-medical students in particular along with faith-based motivations that may limit equitable access to the care provided by medical missions. The analysis points out that understanding the diverse motivations of both medical and pre-medical students from the Global North can support more ethical and effective medical mission practices, including informing guidelines for volunteers and the different pathways for their communication between these groups.

Keywords: global medical missions, medical students, pre-medical students, motivations, health equity, Ghana.

3.2 Background

Medical missions have emerged as important schemes for delivering essential health care services to equity-seeking communities globally (1). Some medical missions are relatively informal in nature and involve short-term trips organized by groups to support health care delivery and/or administration to communities in need, while others have a long-standing presences in host nations and are deeply integrated into local health systems (2). Many medical missions, and especially those that are long-term in nature, are organized and hosted by educational, faith-based, non-governmental, and/or forprofit organizations (3). While some medical missions employ paid staff, many rely heavily on volunteers to undertake everything from providing interventional medical care to food and supply distribution in local communities (4). The flow of volunteers to missions throughout the Global South is heavily, but not exclusively, from higher income countries in the Global North to lower and middle income countries where factors such as health inequities, civil unrest or war, and poverty result in substantially inadequate and/or inaccessible local health care systems (5). There has been criticism of this inflow of volunteers into medical missions to provide health and social care, with some suggesting that their presence reinforces dependencies on the Global North while lessening pressure on home governments to reform health systems and support local health worker training and retention (3,6). Meanwhile, benefits for host countries have

also been observed related to, among other factors, improving access to preventative care, supporting local health worker training, and local travel and tourism revenues (7–9).

Volunteers from the Global North are often driven to participate in medical missions in Global South countries out of a blend of altruism, cultural curiosity, ancestral connection, professional networking, and opportunities for clinical skill development (3,10,11). Trained and licenced medical providers, including physicians and nurses, are among those who volunteer in such medical missions. It is also well known that students enrolled in medical education programs in colleges and universities in Global North countries, who are not yet licensed or certified for practice, are another sizeable volunteer group (12). Medical students who participate in medical missions may provide a range of health care services that include basic medical check-ups, triaging, general health diagnosis, vaccinations, complex surgical procedures, and specialized treatments (13,14). Immersive experiences of care delivery can enhance medical students' emerging clinical knowledge and can support refining their ability to navigate complex challenges with flexibility (15,16). Other activities medical students participate in through these missions can include providing public health education, making donations of personal protective equipment, supporting community infrastructure and sanitation projects, and undertaking actions that build resilience and emotional strength among community members (5,17–20). Sometimes those in Global North countries who are hoping to gain admission to medical education programs, referred to herein as premedical students, also opt to volunteer in medical missions in Global South host countries (21). Participation in a medical mission by this group may be thought to support successful admission into medical education programs by offering hands-on experience and a demonstration of professional commitment (22).

In some cases, the care delivered by medical mission volunteers while in host communities will be the closest thing to professional health care residents will be able to access in the near future (23). Concerningly, community members may lack awareness that some of these volunteers are not fully trained and licensed professionals in their home countries (11). Another often cited concern is that the participation of not fully trained or licensed volunteers in medical missions reinforces global health inequities, such as the potential exploitation of patients in Global South host communities by those from the Global North seeking professional development opportunities (24,25). There

are additional ethical concerns that pre-medical students, despite their varied motivations for participation, lack the training and experience of their medical student counterparts in ways that can have negative impacts for the community members being served by a medical mission (26). Further to this, sustainability challenges arise as volunteer stays of shorter durations and their frequent unavailability to provide follow-up care can compromise the quality of care provided (20,24). Moreover, the presence of foreign volunteers may overshadow existing or potential capacity by local health care professionals, reducing training opportunities and potentially demoralizing them and undermining local health care system (27). All of this presents a challenge that has fueled a nascent discourse on the appropriateness of volunteers', and particularly medical students', intentions towards and participation in medical missions (28). There is considerably less known about the participation of pre-medical students from the Global North in medical missions in Global South countries relative to those already enrolled in medical education programs, and so these existing debates rarely explicitly consider this group of volunteers.

It is against this backdrop that we seek to provide a nuanced understanding of the motivations, prior to actually going abroad, driving medical and pre-medical students from the Global North to want to participate in medical missions. We focus on Ghana as the destination country. Within the Ghanaian context, while the existing literature explores some of the motivations and outcomes of participation for medical students (29–31), those for pre-medical students remain underexplored. We qualitatively explore the motivational factors by thematically analyzing 100 publicly available crowdfunding campaigns posted by those raising funds to support their future participation in a medical mission in Ghana. Understanding these motivations can support more effective and ethically sound medical mission practices, such as communicating tailored expectations with both volunteer groups prior to participation through appropriate pathways. This may support ensuring that these medical missions not only address immediate care needs but also promote long-term health equity and sustainability within the Ghanaian communities they serve.

3.2.1 Ghana as a Host Country for Medical Missions

Despite facing significant health care challenges related heavily to inadequate funding and the limited local availability of trained professionals (32,33), over the past few decades Ghana has made considerable progress in health care delivery and infrastructure to improve access to care. However, the accessibility of health services as well as the quality of care available varies significantly across the country (34). Urban centers are well-served, hosting most of the country's hospitals, clinics, and pharmacies. In contrast, rural areas often lack access to the most basic of services (35,36). Most health care services are provided by the government, primarily administered by the Ministry of Health and the Ghana Health Services (36,37). The government's Community-Based Health Planning and Services initiative, rolled-out in 2000, specifically addresses primary care needs in predominantly rural communities, such as prenatal and antenatal care (38,39). Further to this, the government implemented the National Health Insurance Scheme in 2003 to improve universal health coverage to all Ghanaians (40).

Regardless of the existence of state-led health care interventions in Ghana, there remains a considerable gap in health care access among Ghanaians. For example, the shortage of health care personnel, predominantly in rural communities, continues to be a major challenge that is also negatively impacting health outcomes for these residents (41). Generally, Ghana has a low estimated doctor to patient ratio of 1:8000, which is substantially below the World Health Organisation's target ratio of 1:1000 (39). A significant factor driving this poor ratio is the out migration of health professionals who are readily able to find improved pay and working conditions abroad (42). Challenges such as poor health care infrastructure, overcrowded health care facilities, and underfinancing of the health care sector are contributing to poor health outcomes, which further strain any capacity within Ghana's health care sector (43,44). Since the late 1970s, both short- and long-term medical missions have been working to address these challenges and other health care gaps in Ghana, seeking improved health status and better care access for all Ghanaians (45).

Medical missions operating in Ghana are heavily faith-based, and by 2015 such organizations were so integral to care provision in the country that they were providing approximately 40% of all care delivery (46). In the late 1970s and through the 1980s, political and economic instability in Ghana rendered medical missions as the primary health service provider in the country, with significant funding coming from American, German, and Dutch aid organizations (46). Since this period, medical missions have heavily complemented health care delivered by the local health care system (29,47). Over time, these voluntary sector medical missions have gained some local favour,

particularly around their demonstrated support for meeting and improving the health care needs of residents in some rural Ghanaian communities (46). The impacts of medical missions in Ghana have been well documented (e.g. 31,41,47,49,50). For instance, Mantey and colleagues contend that medical missions have been effective in addressing some of the most immediate health care needs of marginalized Ghanaians by providing services that might otherwise be inaccessible (39). They have also offered capacity building training to some Ghanaian health care professionals and supported the development of sustainable health care practices through effective collaborations (30). Further, volunteers participating in medical missions often bring much-needed medical supplies and equipment, which has directly improved the quality of care delivered in Ghana's rural communities (46). However, the short duration of many medical missions that are heavily staffed by relatively inexperienced volunteers from the Global North has created some disruptions for Ghana's local health care system, such as when inferior care has been provided or when missions have closed or leaders have left without adequate warning (30), although the country still faces extensive challenges around retaining domestically trained health workers (49).

3.3 Methods

For the current exploratory qualitative analysis, we performed an extensive review of publicly available crowdfunding campaign narratives related to personal fundraising for medical mission trips to Ghana posted by pre-medical and medical students, using the GoFundMe crowdfunding platform. We focused on a single country as consistency in destination context supported our ability to identify similarities and differences in pre-medical and medical students' motivations for participating in a medical mission. GoFundMe was chosen as the site from which to gather campaigns due to its reputation as the largest Western platform for health-related crowdfunding campaigns on GoFundMe include detailed narratives posted by campaigners that relay information to potential donors by being publicly available (54). These highly accessible narratives are increasingly being used by researchers to qualitatively explore a range of phenomena including cancer treatment trends (55,56) and care for those managing neurologic diseases and injuries (57,58). In the case of the current study, using crowdfunding campaign anaratives allowed us to gain insights into how medical and pre-medical

students publicly talked about their intended involvement in a medical mission to Ghana. This is a perspective that would be difficult to capture through any other existing medium or even via many modes of primary data collection given the lack of collective or formal organization among pre-medical students in particular.

Our first step in data collection was to conduct a series of key word searches using the publicly accessible search engine on GoFundMe's platform. The first author exhaustively searched combinations of relevant keywords (e.g., Ghana, medical care, medical mission, health volunteer, medical volunteer, medical student, medical school, pre-med volunteer, medical student internship, global health internship) until no new campaigns were identified. This strategy generated a total of 147 complete campaigns that were posted by those who clearly and explicitly identified as either medical or premedical students requesting funding to support participating in a medical mission in Ghana over a five-year period, between 2018 and 2023. By 'medical student,' we are referring to campaigners who explicitly referred to having been enrolled in a medical education program at the time of campaigning, such as to become a physician, dentist, nurse, or allied medical care provider. By 'pre-medical student,' we are referring to campaigners who indicated being enrolled in an educational program at the time of campaigning or recently graduating and explicitly expressed interest in gaining future admission to a medical education program. Eighty-three campaigns were posted by medical students and 64 were posted by pre-medical students, all of whom were based in Global North countries. We next randomly selected 50 campaigns from each group for deeper review and comparative thematic analysis to create a dataset with equal representation from both pre-medical and medical students. The campaign URL, creation date, funding request, funded amount, campaigner location, donor information, and status (active or inactive) was extracted for these 100 campaigns by the first author and integrated into a shared spreadsheet.

A comparative thematic analysis was conducted on the narratives of the 100 campaigns included in the dataset to identify notable convergences and differences in what was discussed in those posted by pre-medical students and medical students who were planning to travel to Ghana to participate in a medical mission. Comparative thematic analysis involves identifying patterns and meanings across multiple datasets or multiple groups to explore similarities and differences in contexts and experiences, thereby providing a deeper understanding of the phenomenon under study (59). As a

first step in the analytic process, each team member independently reviewed 40 campaign narratives uniquely assigned to them by the first author, 20 from each group, to identify recurring themes (60). Afterward, the team convened to deliberate on analytical pathways, employing investigator triangulation to confirm the scope of the themes. This was done to improve understanding and ensure the trustworthiness and rigour of the analysis (61,62). Key concepts guiding these themes were subsequently identified, which helped shape the creation of a coding framework for the analysis. One dominant theme centred around comparatively exploring the various motivations that were written into the campaign narratives by both pre-medical and medical students, noting important similarities and differences between the groups, which is the focus of the current analysis.

Following the identification of dominant themes, the first author exported the narratives from the 100 included campaigns into a word processing document, highlighting verbatim narrative passages that fell within the scope of each theme using coloured hand coding to implement the coding framework (52). Coding extracts were independently reviewed by team members to confirm scope and to compare motivation sub-themes between the two groups of focus, followed by a team meeting to finalize the analytic approach. Consistent with a thematic approach to qualitative data analysis, the comparative findings were contrasted against findings in existing relevant literatures to identify novelty in data interpretation (63,64). This step was critical in fully realizing the comparative nature of the analysis. The section that follows reports on the findings of the analysis, integrating verbatim quotes throughout to support trustworthiness (65). Though the campaigns are publicly available and searchable by anyone, we have opted not to report granular details such as campaigners' names and locations so as to safeguard their privacy (54).

3.4 Findings

Campaigners within the medical student group requested an average amount of USD\$2,823³ (range: USD\$500-10,000) to support their travel to Ghana to participate in a medical mission, while the average funds raised totaled USD\$1,865 (range: USD\$165-3,890). The number of donations per campaign varied between one and 82, with an average of 28. Among this group, 31 resided in the United States, 17 in the United Kingdom, and two hailed from Canada. Among pre-medical students, monetary requests ranged from USD\$930 to USD\$30,000 (average: USD\$3,655), and the raised funds varied between USD\$75 and USD\$5,100 (average: USD\$2,054). The number of donations per campaign ranged from three to 62, with an average of 27. Most premedical campaigners were based in the United States (n=41), with eight residing in the United Kingdom and one in Australia. All students in both groups had collaborated or connected with medical missions or aid organizations representing them either based in their home countries or in Ghana. They included study abroad offices in universities, international and local volunteering organizations, and faith-based charities and groups. Formal medical missions or charities with a continuing presence in Ghana that students interacted with included Global Medical Brigade, International Volunteering Headquarters, Ghana Medical Relief, Davis Christian Followship, and Doctors Without Borders. It was most common for medical students to refer to plans for group medical mission trip organized by their home colleges or universities, while pre-medical students engaged more directly with faith-based charities and organizations based in Ghana to support their own planning.

Crowdfunding platforms encourage campaigners to write richly detailed and highly personal narratives to encourage donations (66). It is thus not surprising that the 100 campaigns that form the basis of the current dataset shared important insights into intentions regarding participating in a medical mission in Ghana. Narratives ranged in length from a single paragraph to multiple pages and typically integrated photos or other imagery, such as school logos. A consistent point of similarity in the narratives between both groups was discussion relating to motivations. Motivations capture the reasons

³ Funds requested and received were standardized into United States Dollar (USD) amounts.

and/or desires that people have regarding undertaking, or wanting to undertake, particular actions (67). Motivations were discussed in quite nuanced ways between medical and pre-medical students, with four common ones being identified in the comparative thematic analysis. First, both groups discussed their motivations for wanting to participate in a medical mission in Ghana specifically. Second, there was also consistent discussion around reasons for wanting to engage others in supporting their decisions to participate in a medical mission. Third, members of both groups discussed being motivated to undertake specific actions once engaged in the medical mission in Ghana. Finally, campaign narratives revealed motivations for why these students wanted to gain experience via participating in a medical mission. In the following sub-sections, we comparatively explore these motivations, discussing the similarities and differences between pre-medical and medical students.

3.4.1 Motivations for Selecting Ghana

Both groups of students frequently expressed their motivations for specifically selecting Ghana as a destination country for their intended medical mission participation in their crowdfunding narratives. These motivations were typically driven by a combination of factors: the medical needs of deprived Ghanaian communities that needed attention; a relatively stable political environment and infrastructure that supported 'safe' travel; the rich cultural heritage that provided interesting touristic experiences; the use of English language that aided clear communication; and the accessibility that made travel to and transit within Ghana feasible. Students in both groups typically regarded engaging with Ghana's underserviced rural communities as an opportunity to make a real difference by providing medical care to those who needed it most. A medical student remarked that "...my objective is to help the people of Ghana who are either neglected or cannot receive immediate health care." Both groups also reflected their concern for the welfare of Ghanaians who faced significant barriers to accessing health care services. The narratives further revealed that some students in both groups were motivated by a broader vision of ensuring sustainable improvement in health care in Ghana. This was echoed by a medical student who wanted to support people "...to build community ownership and collaboratively execute programs with the end goal of sustainably improving health outcomes." This sentiment demonstrated their motivations to be involved in efforts that contributed to long-term and sustainable solutions for improving

health disparities and addressing health system needs in Ghana. Despite such motivations, discussions of how their participation in a medical mission might tangibly support such outcomes were absent from the crowdfunding narratives.

Another motivational driver, particularly among some pre-medical students, were existing personal ties to Ghana. Some pre-medical students revealed how their experiences in previous medical mission trips had exposed them to the health needs of the Ghanaian people. Others intimated their personal connections via Ghanaian ancestry and having seen or heard about the health care challenges faced by some communities in Ghana from family. A pre-medical student explained that "...as a Ghanaian living in the US [United States], this will be an opportunity to have a direct change in the lives of my fellow Ghanaians having limited access to healthcare services." This expression demonstrated a personal connection and commitment to addressing healthcare challenges in Ghana. In such instances, some pre-medical students' desires to participate in a medical mission in Ghana stemmed from a sense of responsibility. Similar to this, some pre-medical students noted a deep-seated sense of obligation towards their responsibility to improve others' health as driving their decision to travel to Ghana. As one pre-medical student stated, ".... I am passionate for fulfilling my heart desire for helping others and seeing the smallest thing that I can do every day to help make someone's life better." Overall, pre-medical students were more likely than medical students to discuss motivations for participation that extended beyond providing patient care and supporting health system engagement in Ghana.

3.4.2 Motivations for Engaging Others

Both pre-medical and medical students were motivated to engage others in their intentions to participate in a medical mission in Ghana, including members of their existing spiritual and church communities. Most pre-medical students discussed being inspired by their religious beliefs, citing that their motivations for participating in a medical mission extended beyond providing medical care to include providing spiritual guidance, evangelism, and community engagement through partnership with local religious and humanitarian organizations. These pre-medical students declared their sense of purpose in serving local communities, local health organizations, and also faithbased organizations through the integration of both medical and non-medical projects. As one pre-medical student explained, "…I will be sharing the love of Christ with these

people through both medical and non-medical projects." This sentiment also reflected the comprehensive approach taken primarily by pre-medical students to medical missions that involved an integrated intention to engage in community-based, faithdriven volunteering while in Ghana.

Given their use of crowdfunding to cover costs, students in both groups were clearly motivated to engage those in their personal networks in their decisions to go to Ghana to gather financial assistance to cover the high costs of participating in a medical mission. The cited expenses of participating included flight and ground transit costs, visa application fees, accommodation and sustenance costs, procurement of medical supplies, and charitable donations in infrastructure. Expressions along the lines of "...I am enthusiastic about this opportunity. But I need your support! A sum of USD\$3,500 would suffice to cover my airfare, lodging, vaccinations, and medical supplies" were common. High financial costs underlined their motivation, and ultimately their need, to engage others to ensure the success of their humanitarian efforts in Ghana. Many students in both groups integrated regular updates into their crowdfunding campaigns to further engage people who supported their medical mission trips in their activities. This extended to a desire to "...share stories upon my return" noted by some. This assertion signified students' motivations to keep people informed about their medical mission intentions and experiences in Ghana, including the rightful use of others' funds to directly support the costs of volunteering in such a capacity.

3.4.3 Motivations for Planned Actions

Students in both groups discussed the activities they were motivated to take part in while participating in a medical mission to Ghana. These activities included the provision of specific health care services, such as dentistry and midwifery, as well as diagnosing and treating a wide range of medical conditions. Such intended actions were centred on deprived and marginalized communities throughout Ghana. One common motivation for undertaking such activities was students' desires to collaborate with, or learn from, local practicing health care professionals to deliver vital health care in Ghana. This collaborative approach was widely cited as a significant strength of participating in medical mission trips. Most medical students expressed their motivations to collaborate with qualified local health professionals to "...provide free medicines, triage, surgical procedures, and providing aid to patients in the clinics for free." As a contrast, some pre-

medical students highlighted their intentions of shadowing health professionals and participating in other supportive roles: "...we will get to shadow highly knowledgeable physicians and medical professionals, assist the staff of the hospital with daily activities." These collaborative efforts, from the perspectives of students in both groups, held the potential to deepen their training by introducing them to new techniques and insights, as well as incorporating culturally sensitive approaches to patient care.

Most medical students outlined their intentions to donate medical equipment. including urine testing strips, pulse oximeters, stethoscopes, blood pressure monitors, thermometers, hand sanitizer, and antiseptic wipes, while in Ghana. Specific equipment and supply requests were typically shared by missions and organized through the universities or colleges with which they were registered. Medical students also emphasized organizing, facilitating, and expanding public health educational initiatives aimed at raising awareness about prevalent health issues, hygiene practices, and disease prevention strategies during the medical mission. These efforts were framed as empowering Ghanaian communities to achieve sustainable improvements in overall health and wellbeing. Although some pre-medical students echoed similar views, most of them focused more on being motivated to undertake activities to enhance infrastructure and community development initiatives: "...we will help improve infrastructures in small communities and supports with sanitation, and clean water projects." As they were motivated to improve infrastructure, such as building sanitation facilities and providing clean water projects, they aimed to prevent common communicable diseases like malaria, cholera, and dysentery.

3.4.4 Motivations for Gaining Experience

While both groups of students strived to gain cultural competency, practical knowledge, and professional skills development, their motivations for gaining experience through participating in a medical mission in Ghana varied. For most medical students, their emphasis was on gaining a deep understanding of Ghana's health care system and its associated challenges, learning first-hand about providing medical care in resource-constrained environment. They also regarded participating in medical missions as an invaluable opportunity to expand their existing clinical expertise as trainees and fulfill educational or course requirements before completing medical school. As one medical student explained "...this experience will grant me an understanding of healthcare

systems in Ghana and meet the requirement for nursing practicum to finishing nursing at [university]." By immersing themselves in the local healthcare environment, they anticipated applying theoretical knowledge to improving practical experiences, as shown in the following statement: "...to improve knowledge and experiences within the nursing field and practice." This hands-on experience was intended to help prepare them professionally as they were already on paths to careers in health care. It was also intended to strengthen their academic foundations.

Pre-medical students prioritized intentions to gain first-hand practical and clinical experiences, fulfilling prerequisites for medical school applications and gaining experience they thought would make them more competitive in gaining admission to a desired school. They viewed medical mission and volunteer experiences in Ghana as avenues for gaining a competitive edge in their applications, recognizing the value of first-hand exposure to health care practice. One pre-medical student articulated that "…*I would love the opportunity to gain some practical clinical experience before applying to medical school.*" This statement captured the importance of hands-on learning in preparation for the rigorous demands of medical education. For pre-medical students, their motivations for participating in a medical mission in Ghana were not only to bolster their resumes but also to provide insights into the realities of medical practice, helping them stand out among a highly competitive pool of applicants.

3.5 Discussion

The comparative thematic analysis identified nuanced motivations among medical and pre-medical students from the Global North who intended to participate in medical missions to Ghana. These included their motivations for selecting Ghana, engaging others, planning activities during the mission, and the desire to gain experiential knowledge. These motivations reflected a combination of altruism and a desire to effect meaningful changes in rural Ghanaian communities, ancestral connection, professional growth and development, and a dedication to global health. The specific factors supporting these motivations revealed important differences between medical and pre-medical students. For example, many pre-medical students were motivated to participate in a medical mission in Ghana to increase their likelihood of being accepted into medical school while also wanting to support some non-medical volunteering while abroad. By comparison, medical students were more heavily focused on expanding their hands-on

skills while abroad. Here we expand on these findings while contextualizing them within existing literature on medical missions and global health. We call particular attention to the practical implications of pre-medical students' motivations and intended activities while abroad for factors contributing to health equity in Ghana.

This comparative thematic analysis has shown that many medical and premedical students are motivated to participate in medical missions by a deep sense of purpose and altruism, indicative of their commitment to the welfare of Ghanaians. This finding has been reinforced in studies focused on other Global South destination countries (68), as has the desire of volunteers from the Global North to positively impact the lives of people living elsewhere (69). Through empathy, ancestral connections, and care practices, pre-medical students particularly recognized themselves as agents of change, which is something that has been found to hold true for medical student volunteers in other contexts (70,71). Pre-medical students seemed to be particularly interested in integrating their faith and religious beliefs into activities they planned to undertake in Ghana. This motivation is something that has been flagged elsewhere as raising complex ethical concerns around potential inequities in care access emerging for members of communities in which medical missions are located who do not share those same beliefs or are not open to learning about them (72–75). Faith-based motivations were far less discussed among medical students, most of whom were planning to participate in mission trips organized by their home universities or colleges. The involvement of these universities or colleges in trip planning does allow for some degree of oversight regarding matters such as information coordination, assessing students' skill sets and recommending appropriate levels of on-site care support in Ghana, and even the creation of ethical guidelines around participation. There have been extensive calls made in the global health and higher education literatures for universities and colleges undertaking coordinating roles for students' participation in medical missions in Global South countries to take on these very types of activities so as to lessen the potential for harm and increase the likelihood of health equity benefits for destinations (3,76).

The motivations of medical and pre-medical students to address healthcare challenges in Ghana through participation in medical missions inspired them to seek engagement in a variety of activities. In collaborating with and shadowing local health care professionals, students from both groups anticipated participating in interventional care, patient visits that included diagnostic consultations, and health education

programs. These are all activities commonly undertaken by volunteers in medical missions in a range of Global South host countries (76,77). The participation of medical students in medical missions and the impacts of their volunteer labour on local communities have been extensively explored (78,79). As noted in the introduction, premedical students' involvement as medical mission volunteers has been given far less consideration. A noteworthy exception is Wallace (28, p. 2), who points out that premedical students' "good intentions" and desires for "making a difference" along the lines of those reported in this analysis can inadvertently undermine local health care systems in Global South host nations (26). McCall and Iltis (28) further raise concerns about the ethical challenges pre-medical students may face while abroad with regard to determining the limits of the kinds of care they should provide when compared to more experienced medical students. As described in their crowdfunding campaign narratives, the current analysis has shown that pre-medical students were likely to be in touch with coordinating aid organizations in their home countries or medical missions or aid organizations in Ghana upon becoming motivated to participate in a mission. This finding offers insight into possible organizational avenues for communicating expectations related to the anticipated limits of the activities in which they should plan to participate while abroad so as to ensure expectations are realistic and equitable. Such informational tools could encourage critical thought around the need for medical missions and their volunteers to not create dependency or undermine trust between health care providers and the local communities (17,20,80).

Further research is needed to develop best practices for medical missions, emphasizing ongoing monitoring and evaluation to ensure that the motivations and practices of pre-medical and medical students alike are ethically sound, equitable and contribute positively to the communities they intend to serve. Here we highlight two such research directions. First, calls have been made elsewhere for comprehensive pre departure training programs and on-site supervision (81). Based on our consideration of pre-medical students' involvement, future research to support the creation of such training programs or evaluation mechanisms for on-site supervision should consider the specific skills and needs of this group. This would include exploring whether any mismatches exist between the types of experiences they may have while abroad relative to those they believe are necessary to support successful admission into a medical education program. Second, there is increasing research attention being given the role

of crowdfunding platforms in growing or reducing global health inequities as a result of the fundraising activities they support (82–84). Much of this attention has focused on large-scale initiatives and outreach by organizations rather than individual fundraising recipients, and it has raised significant ethical concerns (85). The dataset used in the current analysis has highlighted the potential for future studies to consider activities undertaken at the individual scale that have implications for global health inequities and the ethical dimensions of them being supported through crowdfunding. In fact, GoFundMe is so aware of the role it plays in facilitating fundraising for medical mission volunteers that it has created a guideline page for such campaigners. They encourage campaigners to ask themselves about the reasons they want to participate, where they are comfortable travelling to, the skills they can contribute, and the length of time they would like to be abroad for while also providing trip planning information, encouraging pre-travel vaccination, and offering further readings (86). The findings of the current analysis would support further encouragement for pre-medical students in particular to reach out to host organizations or medical missions to ensure an early understanding of the recommended limits of their participation to ensure they align with expectations.

Limitations

First, although the narratives from GoFundMe campaigns provided valuable insights for this study, seeking the opinions and perspectives of medical and pre-medical students directly involved in medical missions may have provided a more comprehensive understanding of their motivations. We believe the analytic strength of being able to draw from 100 narratives, 50 from each of the two groups of focus, outweighed this potential limitation. A second limitation was that we limited our dataset to campaigns posted on GoFundMe. While our robust search strategy yielded what is likely to be a very comprehensive dataset of pre-medical and medical student campaigns for funds to participate in a medical mission trip to Ghana hosted on GoFundMe, it is likely that other crowdfunding sites also host such campaigns. This design limitation is balanced by the fact that our analysis seeks qualitative transferability and not quantitative generalizability and so capturing a representative or universally comprehensive dataset across all platforms was not a goal.

3.6 Conclusions

The analysis has provided comparative insights into the motivations of medical and premedical students from Global North countries seeking to participate in medical missions to Ghana. The wide range of motivations observed, from altruism to professional growth and development, showcased common aspects of motivations to participate between these diverse groups. As medical and pre-medical students openly discussed their intentions to participate in medical missions, they often reflected on the professional benefits of such engagement. While medical students heavily looked to deepen their clinical training and apply textbook learning to real-world scenarios, pre-medical students were more likely to be motivated by the potential that participating in a medical mission would bring for their future acceptance into a medical education program.

This analysis has further shed light on some of the ethical and health equity implications of pre-medical students' involvement in medical mission to Ghana based on their motivations, including concerns about their scope of practice and the incorporation of faith-based agendas, both of which may have a strain on local health care systems that are in need of support. Medical and pre-medical students from Global North countries must function ethically and collaboratively when volunteering in medical missions, ensuring that their actions are consistent with the needs and priorities of the communities in the Global South nations they intend to serve (17,87).

Declarations

Ethics approval and consent to participate.

The data used in this analysis are publicly available. As per *Canada's Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS2)*, which guides ethical practice by Canadian researchers, ethical approval was not required.

Availability of data and materials

The data used in this analysis are already publicly available. Further data extracts are available from BLNB.

Competing interests

The authors declare that they have no competing interests.

Funding

None to declare.

Authors' contributions

All authors contributed to the development of this study. The study was conceptualized by VAC and JS, with BLNB leading the review of crowdfunding campaigns. BLNB conducted the comparative data analysis, incorporating triangulated perspectives from VAC and JS. BLNB drafted the manuscript, with detailed input and editing support from VAC. JS reviewed and edited the manuscript. All authors have reviewed and approved the final manuscript.

Acknowledgements

VAC holds the Canada Research Chair in Health Service Geographies.

3.7 References

- Yao CA, Swanson J, McCullough M, Taro TB, Gutierrez R, Bradshaw A, et al. The Medical Mission and Modern Core Competency Training: A 10-Year Follow-Up of Resident Experiences in Global Plastic Surgery. Plast Reconstr Surg [Internet]. 2016 Sep [cited 2023 Nov 16];138(3):531e. Available from: https://journals.lww.com/plasreconsurg/FullText/2016/09000/The_Medical_Mission_ and_Modern_Core_Competency.36.aspx?casa_token=mOHDcsBqQMAAAAA:qPD-ANTy1sYoYMrJMTY8QeLd1fYOPijY-IPO_OcibVv-CLnbRW4Bqa0KBrFwLljS6lwgTo-Z6 5v-E0L6N0YSw
- Roche SD, Ketheeswaran P, Wirtz VJ. International short-term medical missions: a systematic review of recommended practices. Int J Public Health [Internet]. 2017 Jan 1 [cited 2023 Nov 23];62(1):31–42. Available from: https://doi.org/10.1007/s00038-016-0889-6
- Lasker JN, Aldrink M, Balasubramaniam R, Caldron P, Compton B, Evert J, et al. Guidelines for responsible short-term global health activities: developing common principles. Glob Health [Internet]. 2018 Dec [cited 2023 Aug 28];14(1):18. Available from: https://globalizationandhealth.biomedcentral.com/articles/10.1186/s12992-018-0330-4
- 4. Caldron PH, Impens A, Pavlova M, Groot W. Why do they care? Narratives of physician volunteers on motivations for participation in short-term medical missions

abroad. Int J Health Plann Manage [Internet]. 2018 [cited 2023 Nov 7];33(1):67–87. Available from: https://onlinelibrary.wiley.com/doi/abs/10.1002/hpm.2402

- Martiniuk AL, Manouchehrian M, Negin JA, Zwi AB. Brain Gains: a literature review of medical missions to low and middle-income countries. BMC Health Serv Res [Internet]. 2012 May 29 [cited 2023 Oct 25];12(1):134. Available from: https://doi.org/10.1186/1472-6963-12-134
- Maes K. Examining health-care volunteerism in a food- and financially-insecure world. Bull World Health Organ [Internet]. 2010 Nov 1 [cited 2024 Jun 25];88(11):867–9. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2971508/pdf/BLT.09.074120.pdf/
- Hoppenot C. Medical Missions to Developing Countries (Pro). In: Lonchyna VA, Kelley P, Angelos P, editors. Difficult Decisions in Surgical Ethics: An Evidence-Based Approach [Internet]. Cham: Springer International Publishing; 2022 [cited 2023 Nov 16]. p. 571–83. (Difficult Decisions in Surgery: An Evidence-Based Approach). Available from: https://doi.org/10.1007/978-3-030-84625-1_40
- Tracey P, Rajaratnam E, Varughese J, Venegas D, Gombachika B, Pindani M, et al. Guidelines for short-term medical missions: perspectives from host countries. Glob Health [Internet]. 2022 Dec [cited 2023 Aug 28];18(1):19. Available from: https://globalizationandhealth.biomedcentral.com/articles/10.1186/s12992-022-00815-7
- Caldron PH, Impens A, Pavlova M, Groot W. A systematic review of social, economic and diplomatic aspects of short-term medical missions. BMC Health Serv Res [Internet]. 2015 Sep 15 [cited 2023 Nov 23];15(1):380. Available from: https://doi.org/10.1186/s12913-015-0980-3
- Dyson SE, Korsah KA, Liu LQ, O'Driscoll M, Van Den Akker OBA. Exploring factors having an impact on attitudes and motivations towards volunteering in the undergraduate nursing student population – A comparative study of the UK and Ghana. Nurse Educ Pract [Internet]. 2021 May [cited 2023 Sep 14];53:103050. Available from: https://linkinghub.elsevier.com/retrieve/pii/S147159532100086X
- Rovers J, Japs K, Truong E, Shah Y. Motivations, barriers and ethical understandings of healthcare student volunteers on a medical service trip: a mixed methods study. BMC Med Educ [Internet]. 2016 Dec [cited 2024 May 1];16(1):94. Available from: http://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-016-0618-0
- Huerta S, Huchim-Peña CJ, Ta T, Quiñones ME, Mendoza JA, Corzo VF, et al. Patients', Local Staff, and Medical Students' Perceptions on a Medical Mission Trip to Guatemala. Curr Probl Surg [Internet]. 2023 Sep [cited 2023 Oct 25];101378. Available from: https://linkinghub.elsevier.com/retrieve/pii/S0011384023001156
- Malay PB. Short-Term Medical Missions and Global Health. J Foot Ankle Surg [Internet]. 2017 Mar 1 [cited 2024 Jun 25];56(2):220–2. Available from: https://www.jfas.org/article/S1067-2516(17)30031-5/fulltext

- Oliphant JB. Short-Term Medical Missions Done Well: What Every Sponsoring Institution Should Understand. J Physician Assist Educ [Internet]. 2018 Mar [cited 2024 Jun 25];29(1):58. Available from: https://journals.lww.com/jpae/citation/2018/03000/short_term_medical_missions_don e well what every.11.aspx
- Schwartz L, Sinding C, Hunt M, Elit L, Redwood-Campbell L, Adelson N, et al. Ethics in Humanitarian Aid Work: Learning From the Narratives of Humanitarian Health Workers. AJOB Prim Res [Internet]. 2010 Sep 17 [cited 2023 Dec 3];1(3):45–54. Available from: https://doi.org/10.1080/21507716.2010.505898
- Tillson E, Van Wees SH, McGowan C, Franklin H, Jones H, Bogue P, et al. Learning from Somaliland? Transferability of learning from volunteering to national health service practice in the UK. Glob Health [Internet]. 2016 Dec [cited 2023 Aug 28];12(1):9. Available from: http://www.globalizationandhealth.com/content/12/1/9
- Suchdev P, Ahrens K, Click E, Macklin L, Evangelista D, Graham E. A Model for Sustainable Short-Term International Medical Trips. Ambul Pediatr [Internet]. 2007 Jul 1 [cited 2023 Nov 14];7(4):317–20. Available from: https://www.sciencedirect.com/science/article/pii/S1530156707000597
- DeCamp Matthew. Scrutinizing Global Short-Term Medical Outreach. Hastings Cent Rep [Internet]. 2007 [cited 2023 Aug 28];37(6):21–3. Available from: http://muse.jhu.edu/content/crossref/journals/hastings_center_report/v037/37.6deca mp.pdf
- Green T, Green H, Scandlyn J, Kestler A. Perceptions of short-term medical volunteer work: a qualitative study in Guatemala. Glob Health [Internet]. 2009 Dec [cited 2023 Aug 28];5(1):4. Available from: https://globalizationandhealth.biomedcentral.com/articles/10.1186/1744-8603-5-4
- 20. Sykes KJ. Short-Term Medical Service Trips: A Systematic Review of the Evidence. Am J Public Health [Internet]. 2014 Jul [cited 2023 Nov 30];104(7):e38–48. Available from: https://ajph.aphapublications.org/doi/full/10.2105/AJPH.2014.301983
- Wilkinson SE. The Benefits of Premedical Students' Volunteer Service With Religious Organizations. Acad Med [Internet]. 2021 Aug [cited 2023 Nov 16];96(8):1077. Available from: https://journals.lww.com/academicmedicine/Fulltext/2021/08000/The_Benefits_of_Pr emedical_Students__Volunteer.4.aspx
- Ellaway RH, Van Roy K, Preston R, Greenhill J, Clithero A, Elsanousi S, et al. Translating medical school social missions to student experiences. Med Educ [Internet]. 2018 Feb [cited 2023 Oct 20];52(2):171–81. Available from: https://onlinelibrary.wiley.com/doi/10.1111/medu.13417
- Gishen K, Thaller SR. Surgical Mission Trips as an Educational Opportunity for Medical Students. J Craniofac Surg [Internet]. 2015 Jun [cited 2024 May 15];26(4):1095. Available from: https://journals.lww.com/jcraniofacialsurgery/fulltext/2015/06000/surgical_mission_tri ps_as_an_educational.28.aspx?casa_token=ZvhQJnu148QAAAAA:EJVLAbHdK-

N8mJnYqul-

DGQWHn48586GjrScdsfXljLc7zSeCeK8DRK_2M7eooAfrrTLI9xwgo0LWYXwKMCR pw&casa_token=S2RsoJPGmtEAAAAA:xG-4OKgglGQr6ceOXsawumMPvEUThqi5o1pQR9DwOVgKoXXU0-B8OjECBIMQWT8ZKLUkMa9sqC6tigRpJS5I0A

- Bauer I. More harm than good? The questionable ethics of medical volunteering and international student placements. Trop Dis Travel Med Vaccines [Internet]. 2017 Dec [cited 2023 Aug 28];3(1):5. Available from: http://tdtmvjournal.biomedcentral.com/articles/10.1186/s40794-017-0048-y
- Hamideh N. A Bioethical Critique of Short-Term Medical Service Trips. The Meducator [Internet]. 2017 [cited 2024 Jun 25];1(32). Available from: https://journals.mcmaster.ca/meducator/article/view/1538
- 26. Wallace L. Does Pre-Medical "Voluntourism" Improve the Health of Communities Abroad? J Glob Health Perspect. 2012 Aug 1;1:Online.
- Tyler N, Chatwin J, Byrne G, Hart J, Byrne-Davis L. The benefits of international volunteering in a low-resource setting: development of a core outcome set. Hum Resour Health [Internet]. 2018 Dec 20 [cited 2024 Jul 11];16:69. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6300912/
- McCall D, Iltis AS. Health Care Voluntourism: Addressing Ethical Concerns of Undergraduate Student Participation in Global Health Volunteer Work. HEC Forum [Internet]. 2014 Dec 1 [cited 2023 Nov 16];26(4):285–97. Available from: https://doi.org/10.1007/s10730-014-9243-7
- 29. Adu-Gyamfi S, Kuusaana MM, Darkwa BD, Tomdi L. The Changing Landscape of Mission Medicine and Hospitals in Sub-Saharan Africa. Christ J Glob Health [Internet]. 2020 Dec 21 [cited 2023 Nov 14];7(5):65–81. Available from: https://journal.cjgh.org/index.php/cjgh/article/view/417
- Jesus JE. Ethical Challenges and Considerations of Short-Term International Medical Initiatives: An Excursion to Ghana as a Case Study. Ann Emerg Med [Internet]. 2010 Jan 1 [cited 2024 May 16];55(1):17–22. Available from: https://www.sciencedirect.com/science/article/pii/S0196064409012591
- Lawrence ER, Moyer C, Ashton C, Ibine BAR, Abedini NC, Spraggins Y, et al. Embedding international medical student electives within a 30-year partnership: the Ghana-Michigan collaboration. BMC Med Educ [Internet]. 2020 Jun 12 [cited 2024 May 19];20(1):189. Available from: https://doi.org/10.1186/s12909-020-02093-6
- 32. Afari-Asiedu S, Asante KP, Senah K, Abdulai MA, Afranie S, Mahama E, et al. Volunteering for Health Services in the Middle Part of Ghana: In Whose Interest? Int J Health Policy Manag [Internet]. 2018 May 5 [cited 2024 May 16];7(9):836–46. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6186480/
- Schmid P. Mission Medicine in a Decolonising Health Care System: Agogo Hospital, Ghana, 1945–1980. Ghana Stud [Internet]. 2014 [cited 2023 Nov 14];15–16(1):287– 329. Available from: https://gs.uwpress.org/lookup/doi/10.3368/gs.15-16.1.287

- Carney C. Delivering Healthcare to Rural Ghana: telmedx and Mahiri Mobile Serve Patients in Remote Areas. Telehealth Med Today [Internet]. 2016 [cited 2024 Jun 26];1(1). Available from: https://telehealthandmedicinetoday.com/index.php/journal/article/view/67
- 35. Bishai D, Schleiff M. Achieving Health for All: Primary Health Care in Action. JHU Press; 2020. 369 p.
- 36. Awoonor-Williams JK, Apanga S, Bawah AA, Phillips JF, Kachur PS. Using Health Systems and Policy Research to Achieve Universal Health Coverage in Ghana. Glob Health Sci Pract [Internet]. 2022 Sep 15 [cited 2024 Jun 26];10(Supplement 1). Available from: https://www.ghspjournal.org/content/10/Supplement 1/e2100763
- Ayanore M, Asampong R, Akazili J, Awoonor-Williams JK, Akweongo P. Subnational variations in general service readiness of primary health care facilities in Ghana: Health policy and equity implications towards the attainment of Universal Health Coverage. PLOS ONE [Internet]. 2022 Jun 3 [cited 2024 Jun 26];17(6):e0269546. Available from: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0269546
- 38. Wiru K, Kumi-Kyereme A, Mahama EN, Amenga-Etego S, Owusu-Agyei S. Utilization of community-based health planning and services compounds in the Kintampo North Municipality: a cross-sectional descriptive correlational study. BMC Health Serv Res [Internet]. 2017 Sep 26 [cited 2024 May 19];17(1):679. Available from: https://doi.org/10.1186/s12913-017-2622-4
- Mantey EE, Doh D, Lasker JN, Alang S, Donkor P, Aldrink M. Ghanaian views of short-term medical missions: The pros, the cons, and the possibilities for improvement. Glob Health [Internet]. 2021 Dec [cited 2023 Aug 28];17(1):115. Available from: https://globalizationandhealth.biomedcentral.com/articles/10.1186/s12992-021-00741-0
- Okoroh J, Essoun S, Seddoh A, Harris H, Weissman JS, Dsane-Selby L, et al. Evaluating the impact of the national health insurance scheme of Ghana on out of pocket expenditures: a systematic review. BMC Health Serv Res [Internet]. 2018 Jun 7 [cited 2024 May 19];18(1):426. Available from: https://doi.org/10.1186/s12913-018-3249-9
- Boateng-Ade E. Free At Last: An Introspective Guide into the Embedded Roots of Colonialism in the Current State of Healthcare in Ghana. Undergrad J Public Health [Internet]. 2022 Apr 29 [cited 2024 May 16];6(0). Available from: https://journals.publishing.umich.edu/ujph/article/id/2310/
- 42. Preko M, Boateng R, Effah J. Health Informatics and Brain Drain Mitigation in Ghana.
- Drislane FW, Akpalu A, Wegdam HHJ. The Medical System in Ghana. Yale J Biol Med [Internet]. 2014 Sep 3 [cited 2024 May 19];87(3):321–6. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4144286/

- Opoku D, Edusei A, Agyei-Baffour P, Teddy G, Polin K, Quentin W. Ghana: health system review 2021. Eur J Public Health [Internet]. 2021 Oct 1 [cited 2024 May 19];31(Supplement_3):ckab164.577. Available from: https://doi.org/10.1093/eurpub/ckab164.577
- 45. Amalba A, Abantanga FA, Scherpbier AJJA, van Mook WNKA. Working among the rural communities in Ghana - why doctors choose to engage in rural practice. BMC Med Educ [Internet]. 2018 Jun 8 [cited 2024 May 19];18(1):133. Available from: https://doi.org/10.1186/s12909-018-1234-y
- 46. Walker BB. Primary Health Care, Global Health, and Medical Mission: Ghana, the WHO, and the World Council of Churches, 1960–2000. In: Religion in Global Health and Development: The Case of Twentieth-Century Ghana [Internet] [Internet]. McGill-Queen's University Press; 2022 [cited 2024 May 19]. Available from: https://www.ncbi.nlm.nih.gov/books/NBK581300/
- 47. Adu-Gyamfi S. Medical Tourism in Ghana: A History. Kaleidosc J Hist Cult Sci Med. 2022;12(25):1–26.
- Opata JK. "Medivangelism": History and Antecedents in Ghana. E-J Relig Theol Stud [Internet]. 2023 Dec 18 [cited 2024 May 16];564–72. Available from: https://noyam.org/erats20239121/
- Kofi Teye J, Boatemaa Setrana M, Agyeiwaa Acheampong A. MIGRATION OF HEALTH PROFESSIONALS FROM GHANA: TRENDS, DRIVERS, AND EMERGING ISSUES. | Current Politics & amp; Economics of Africa | EBSCOhost [Internet]. Vol. 8. 2015 [cited 2024 Jul 12]. p. 459. Available from: https://openurl.ebsco.com/contentitem/gcd:113258462?sid=ebsco:plink:crawler&id= ebsco:gcd:113258462
- Doran C, Crooks V, Snyder J. Qualitatively exploring the intersection of health and housing needs in Canadian crowdfunding campaigns. BMC Public Health [Internet]. 2022 Jan 26 [cited 2023 Sep 10];22(1):176. Available from: https://doi.org/10.1186/s12889-022-12599-x
- 51. Snyder J, Crooks VA. Is there room for privacy in medical crowdfunding? J Med Ethics [Internet]. 2021 Dec [cited 2023 Sep 6];47(12):e49–e49. Available from: https://jme.bmj.com/lookup/doi/10.1136/medethics-2020-106676
- 52. Vassell A, Crooks VA, Snyder J. What was lost, missing, sought and hoped for: Qualitatively exploring medical crowdfunding campaign narratives for Lyme disease. Health (N Y) [Internet]. 2021 Nov 1 [cited 2023 Sep 10];25(6):707–21. Available from: https://doi.org/10.1177/1363459320912808
- 53. Siemens A, Rustja S, Doiron RC, Siemens DR. A Cross-sectional Comparison of Utilization of Medical Crowdfunding for Global Health [Internet]. Public and Global Health; 2021 Oct [cited 2023 Aug 28]. Available from: http://medrxiv.org/lookup/doi/10.1101/2021.10.05.21264582

- Jin P. Medical crowdfunding in China: empirics and ethics. J Med Ethics [Internet]. 2019 Aug 1 [cited 2023 Sep 10];45(8):538–44. Available from: https://jme.bmj.com/content/45/8/538
- Snyder J, Caulfield T. Patients' crowdfunding campaigns for alternative cancer treatments. Lancet Oncol [Internet]. 2019 Jan 1 [cited 2024 Apr 25];20(1):28–9. Available from: https://www.thelancet.com/journals/lanonc/article/PIIS1470-2045(18)30950-1/abstract
- 56. Ghazal LV, Watson SE, Gentry B, Santacroce SJ. "Both a life saver and totally shameful": young adult cancer survivors' perceptions of medical crowdfunding. J Cancer Surviv [Internet]. 2023 Apr 1 [cited 2024 Apr 25];17(2):332–41. Available from: https://doi.org/10.1007/s11764-022-01188-x
- 57. Snyder J, Turner L. Crowdfunding, stem cell interventions and autism spectrum disorder: comparing campaigns related to an international "stem cell clinic" and US academic medical center. Cytotherapy [Internet]. 2021 Mar 1 [cited 2024 Apr 25];23(3):198–202. Available from: https://www.sciencedirect.com/science/article/pii/S1465324920308574
- 58. Snyder J, Turner L. Crowdfunding for stem cell-based interventions to treat neurologic diseases and injuries. Neurology [Internet]. 2019 Aug 6 [cited 2024 Apr 1];93(6):252–8. Available from: https://www.neurology.org/doi/abs/10.1212/WNL.00000000007838
- 59. Riggs DW, Bartholomaeus C, Due C. Public and private families: a comparative thematic analysis of the intersections of social norms and scrutiny. Health Sociol Rev [Internet]. 2016 Jan 2 [cited 2024 Apr 25];25(1):1–17. Available from: http://www.tandfonline.com/doi/full/10.1080/14461242.2015.1135071
- 60. Creswell JW. Research design: qualitative, quantitative, and mixed methods approaches. 3rd ed. Thousand Oaks, Calif: Sage Publications; 2009. 260 p.
- Moon MD. Triangulation: A Method to Increase Validity, Reliability, and Legitimation in Clinical Research. J Emerg Nurs [Internet]. 2019 Jan 1 [cited 2024 Apr 25];45(1):103–5. Available from: https://www.intljourtranur.com/article/S0099-1767(18)30588-9/abstract
- Fusch P, Fusch GE, Ness LR. Denzin's Paradigm Shift: Revisiting Triangulation in Qualitative Research. J Soc Change [Internet]. 2018 Jan 1 [cited 2024 Apr 25];10(1). Available from: https://scholarworks.waldenu.edu/jsc/vol10/iss1/2
- Braun V, Clarke V. Can I use TA? Should I use TA? Should I not use TA? Comparing reflexive thematic analysis and other pattern-based qualitative analytic approaches. Couns Psychother Res [Internet]. 2021 [cited 2024 Apr 29];21(1):37– 47. Available from: https://onlinelibrary.wiley.com/doi/abs/10.1002/capr.12360
- 64. Sovacool BK, Axsen J, Sorrell S. Promoting novelty, rigor, and style in energy social science: Towards codes of practice for appropriate methods and research design. Energy Res Soc Sci [Internet]. 2018 Nov 1 [cited 2024 Apr 29];45:12–42. Available from: https://www.sciencedirect.com/science/article/pii/S2214629618307230

- Nowell LS, Norris JM, White DE, Moules NJ. Thematic Analysis: Striving to Meet the Trustworthiness Criteria. Int J Qual Methods [Internet]. 2017 Dec 1 [cited 2024 Apr 25];16(1):1609406917733847. Available from: https://doi.org/10.1177/1609406917733847
- 66. Kenworthy N. Crowded Out: The True Costs of Crowdfunding Healthcare. MIT Press; 2024. 232 p.
- Muthuri RNDK, Senkubuge F, Hongoro C. An Investigation of Healthcare Professionals' Motivation in Public and Mission Hospitals in Meru County, Kenya. Healthcare [Internet]. 2020 Dec [cited 2024 Apr 29];8(4):530. Available from: https://www.mdpi.com/2227-9032/8/4/530
- 68. Berry NS. Good Intentions in Global Health: Medical Missions, Emotion, and Health Care Across Borders. NYU Press; 2024. 199 p.
- Banuri S, Keefer P, De Walque D. Love the Job... or the Patient?: Task vs. Mission-Based Motivations in Health Care [Internet]. Inter-American Development Bank; 2018 Dec [cited 2023 Nov 7]. Available from: https://publications.iadb.org/en/lovejob-or-patient-task-vs-mission-based-motivations-health-care
- Welling DR, Ryan JM, Burris DG, Rich NM. Seven Sins of Humanitarian Medicine. World J Surg [Internet]. 2010 Mar [cited 2023 Aug 28];34(3):466–70. Available from: http://link.springer.com/10.1007/s00268-009-0373-z
- Loiseau B, Sibbald R, Raman SA, Benedict D, Dimaras H, Loh LC. 'Don't make my people beggars': a developing world house of cards. Community Dev J [Internet].
 2016 Oct [cited 2023 Aug 28];51(4):571–84. Available from: https://academic.oup.com/cdj/article-lookup/doi/10.1093/cdj/bsv047
- Levin J. Faith-Based Initiatives in Health Promotion: History, Challenges, and Current Partnerships. Am J Health Promot [Internet]. 2014 Jan 1 [cited 2023 Oct 25];28(3):139–41. Available from: https://doi.org/10.4278/ajhp.130403-CIT-149
- Levin J. Partnerships between the faith-based and medical sectors: Implications for preventive medicine and public health. Prev Med Rep [Internet]. 2016 Dec [cited 2023 Oct 25];4:344–50. Available from: https://linkinghub.elsevier.com/retrieve/pii/S2211335516300845
- 74. Lipsky AB. Evaluating the strength of faith: Potential comparative advantages of faith-based organizations providing health services in sub-Saharan Africa. Public Adm Dev [Internet]. 2011 Feb [cited 2023 Oct 25];31(1):25–36. Available from: https://onlinelibrary.wiley.com/doi/10.1002/pad.586
- Houweling R, Astle B. Principles to Guide a Volunteer Humanitarian Faith-based Short-Term Medical Mission in Nepal: A Case Study. Christ J Glob Health [Internet]. 2018 Nov 8 [cited 2024 May 16];5(3):35–42. Available from: https://journal.cjgh.org/index.php/cjgh/article/view/235
- 76. Sullivan N. International clinical volunteering in Tanzania: A postcolonial analysis of a Global Health business. Glob Public Health [Internet]. 2018 Mar 4 [cited 2023 Aug

28];13(3):310–24. Available from: https://www.tandfonline.com/doi/full/10.1080/17441692.2017.1346695

- 77. Ouma BD, Dimaras H. Views from the global south: exploring how student volunteers from the global north can achieve sustainable impact in global health. Glob Health [Internet]. 2013 [cited 2023 Aug 28];9(1):32. Available from: http://globalizationandhealth.biomedcentral.com/articles/10.1186/1744-8603-9-32
- 78. Rogers AJG. Medical student volunteerism and interest in working with underserved and vulnerable populations. BMC Med Educ [Internet]. 2020 Dec [cited 2023 Sep 14];20(1):133. Available from: https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-020-02048-x
- Goel S, Angeli F, Dhirar N, Singla N, Ruwaard D. What motivates medical students to select medical studies: a systematic literature review. BMC Med Educ [Internet]. 2018 Jan 17 [cited 2024 May 16];18(1):16. Available from: https://doi.org/10.1186/s12909-018-1123-4
- Sullivan HR. Voluntourism. AMA J Ethics [Internet]. 2019 Sep 1 [cited 2023 Nov 23];21(9):815–22. Available from: https://journalofethics.ama-assn.org/article/voluntourism/2019-09
- Asgary R, Junck E. New trends of short-term humanitarian medical volunteerism: professional and ethical considerations. J Med Ethics [Internet]. 2013 Oct 1 [cited 2023 Nov 16];39(10):625–31. Available from: https://jme.bmj.com/content/39/10/625
- Snyder J. Crowdfunding FOR MEDICAL CARE: *Ethical Issues in an Emerging Health Care Funding Practice*. Hastings Cent Rep [Internet]. 2016 Nov [cited 2023 Oct 22];46(6):36–42. Available from: https://onlinelibrary.wiley.com/doi/10.1002/hast.645
- Kenworthy NJ. Crowdfunding and global health disparities: an exploratory conceptual and empirical analysis. Glob Health [Internet]. 2019 Nov [cited 2023 Oct 22];15(S1):71. Available from: https://globalizationandhealth.biomedcentral.com/articles/10.1186/s12992-019-0519-1
- 84. Snyder J. Appealing to the Crowd: The Ethical, Political, and Practical Dimensions of Donation-Based Crowdfunding. Oxford University Press; 2023. 273 p.
- Bhati A, Hansen R. A literature review of experimental studies in fundraising. J Behav Public Adm [Internet]. 2020 Apr 26 [cited 2024 Jul 9];3(1). Available from: https://journal-bpa.org
- caitlin. How to Plan a Medical Mission Trip With a Big Impact [Internet]. GoFundMe (CA). 2016 [cited 2024 Jul 9]. Available from: https://www.gofundme.com/enca/c/blog/medical-mission-trip
- 87. Dell EM, Varpio L, Petrosoniak A, Gajaria A, McCarthy AE. The ethics and safety of medical student global health electives. Int J Med Educ [Internet]. 2014 Apr 10 [cited

2023 Nov 6];5:63–72. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4207171/

Chapter 4. Conclusion

4.1 Overview

My thesis research has provided insight into some of the existential questions in medical crowdfunding and global medical missions. In the first analysis (Chapter 2), I used semistructured interviews to explore the dynamics in privacy considerations to have a deeper understanding on the roles and associated role responsibilities Canadian campaigners take on when fundraising for others' health needs. In the second analysis (Chapter 3), I conducted a thematic analysis of crowdfunding campaigns gathered from GoFundMe to explore the motivational factors driving medical and pre-medical students seeking to participate in global medical missions in Ghana. I highlighted the health equity implications of pre-medical students' involvement.

Chapters 2 and 3, though focused on different topics, are linked by the theme of ethical and equitable practices and responsibilities in vulnerable settings. The study on students' motivations for Ghanaian medical missions (Chapter 3) was developed in response to challenges in recruiting participants for the first study on privacy roles and associated role responsibilities in medical crowdfunding (Chapter 2). Crowdfunding narratives provided an alternative data source, enabling an exploration of the health equity implications of students' motivations and participation, particularly pre-medical students' involvement in global medical missions. This approach not only addresses practical data challenges but also serves as a conceptual bridge, highlighting the ethical implications of actions affecting vulnerable populations and the importance of understanding their impact across different but yet related health practices.

This research thesis forms the basis for future studies to unravel the complexities in the practice of medical crowdfunding and global medical missions. The remainder of this chapter revisits the research questions outlined in Chapter 1, while reflecting on the findings of the two analyses in Chapters 2 and 3. In bridging the objectives, I point out the ways in which this research contributes to the discipline of health geography. Although the research questions driving the two analyses were distinct, I next reflect on the underlying themes that interconnect them. These common themes not only lend

coherence to the thesis but also highlight the significance of this research for advancing our understanding of the issues probed herein for the discipline of health geography.

4.2 Revisiting the Research Questions

4.2.1 What roles and associated role responsibilities do Canadian crowdfunding campaigners take on in approaching and safeguarding the privacy of others when fundraising for their health needs?

This research question reflects my interest in understanding the growing practice of medical crowdfunding among Canadians. Using twelve semi-structured interviews to gain insight into this practice, I qualitatively explored the roles and associated role responsibilities of Canadians who fundraise for others' health needs, focusing specifically on privacy-related issues.

As shown in Chapter 2, despite Canada's publicly funded health care system for essential medical needs, many Canadians resort to medical crowdfunding to finance their health care needs. This practice can be understood through the lens of health geography, highlighting the disparities in health care accessibility and the role of digital platforms in enhancing access to health care. It also shows the complex relationship between spatial, socioeconomic, and systemic factors driving Canadians to using medical crowdfunding. This calls for the need to trade off privacy concerns in many cases to inspire donations. In the analysis presented in Chapter 2, three interconnected themes were shown to characterize the way Canadian campaigners approach and safeguard the privacy of intended campaign recipients during fundraising. These themes reflect the key roles and associated role responsibilities taken on by campaigners. These include managing initial content, navigating informational considerations, and facilitating ongoing connections. Those enacting these roles supports ensuring that recipient's privacy is safeguarded and respected during fundraising and beyond.

In managing initial contents, campaigners collaborated with recipients to create and post compelling narratives on a selected platform. This role also involves identifying the financial needs and setting the campaign goal. Navigating informational considerations is associated with managing the balance between addressing privacy concerns and creating appealing campaigns. This also included gaining approval to make decisions about how much medical, financial and personal information to disclose to inspire donations while safeguarding and respecting the recipient's privacy. Finally in facilitating ongoing connections, campaigners provided regular updates to maintain donor engagement. This role required ongoing communication with both the recipients and the donors, while identifying key donors and audiences across diverse networks to encourage sharing.

The narratives and perspectives shared by campaigners broadens understandings of the complexities of safeguarding privacy in medical crowdfunding. The use of qualitative approach allowed for an in-depth exploration, facilitating deep insight into how campaigners navigate privacy concerns while creating compelling narratives to inspire donations. Addressing this research question contributes to the growing body of literature on medical crowdfunding by shedding light on the nuanced nature of privacy safeguard and the role of digital platforms and social media in addressing health care disparities and health needs. Thus, as campaigners expand the scale of potential support networks, they bridge geographic and socio-economic gaps in health care access. In addition, the ethical challenges associated with privacy highlight the need for comprehensive guidelines to support campaigners in navigating these complexities.

4.2.2 What are the key motivations among medical and pre-medical students seeking to participate in global medical missions, as documented in educational crowdfunding campaigns, and what are the health equity implications of their participation in rural communities in Ghana?

Addressing this research question involved delving into the motivational factors that drive medical and pre-medical students who seek to participate in global medical missions in Ghana, while examining the health equity implications, particularly regarding pre-medical students' involvement. Analyzing crowdfunding campaign narratives from GoFundMe, I developed a comprehensive set of search terms to identify relevant campaign narratives that supported the practice of global medical missions to Ghana. This led to the compilation of a comparative dataset of 50 campaigns from pre-medical students and 50 from medical students raising funds to participate in a medical mission in Ghana to form the basis of an analysis.

Following a comparative thematic analysis of the included campaign narratives, four key motivational factors were uncovered. First, both groups were motivated to select Ghana as a prime location for medical missions due to the health needs of marginalized communities, its cultural heritage, a strong sense of altruism, and ancestral connections. Their deep empathy for the health care challenges and personal or ancestral connections motivated them to take direct action. Second, both groups were motivated to engage spiritual or faith-based organizations and personal networks to seek support for their medical mission trips to Ghana and make a positive impact. Third, members of both groups were motivated to undertake specific actions once engaged in the medical mission. These included engaging in both medical and non-medical activities such as clinical care, vaccination, triaging, infrastructure development, community, and public health education. Finally, the campaign narratives revealed motivations and desire for gaining and expanding hands-on clinical experiences, fulfil course requirements and gain competitive advantage in medical school applications. Others viewed medical missions as an invaluable opportunity to broaden their understanding of global health challenges and develop their cultural competencies.

While many pre-medical students expressed enthusiasm for participating in medical missions as a means of exploring their career interests and gaining significant experiences, their level of training and readiness to provide medical care in marginalized communities in Ghana is concerning. Major ethical issues concerning supervision and collaboration, scope of practice, and potential harm to community members by this untrained group emerge. This analysis highlights the importance of thoughtful reflection on students' motivation and needs, mentorship, and ethical guidance in preparing them, particularly pre-medical students, for participation in such endeavors. Further to this, the findings support calls that emphasize the need for further collaboration among educators, healthcare professionals, and students to ensure responsible and ethically sound engagement in global medical missions.

4.3 Bridging the Two Analyses

Several cross-cutting themes are highlighted in this thesis that bridge the two analyses that provide unique insights into the ethical, motivational, contextual and analytical dimensions of both medical crowdfunding and global medical missions. One common theme between the two analyses is their contribution to broadening our understanding of the role of ethics and equity associated with these practices. In medical crowdfunding, Canadian campaigners take on specific roles such as managing initial content,

navigating informational considerations, and facilitating ongoing connections to ensure that recipients' privacy is safeguarded. Similarly, ethical, equity and sustainability concerns are significant in global medical missions, particularly regarding the involvement of pre-medical students. While motivated by a strong desire to make a positive impact and gain invaluable and practical hands-on experience, their level of training and readiness to provide medical care in marginalized Ghanian communities raises important questions for health equity and sustainability. Concerns and recommendations such as adequate preparation and supervision of students, scope of practice, and potential harm to community members highlight the need for careful consideration and ethical guidance in positioning students for effective participation in global medical missions.

Second, motivations and impacts are central themes in both analyses. Crowdfunding campaigners and pre-medical and medical students are driven by altruism and a strong desire to address the health needs of close relatives and marginalized communities. In Chapter 2, campaigners' empathy for the health challenges faced by those in their networks motivated them to seek support from acquaintances and distant donors through the initiation of crowdfunding campaigns. For medical and pre-medical students, motivations included a sense of altruism, cultural heritage, and the opportunity to gain hands-on clinical experience and cultural competency. These motivational factors emphasized their commitments to making a meaningful impact on the communities they sought to serve in Ghana.

Third, both analyses have important socio-spatial contexts that supported exploring how spatial, socio-economic, and systemic factors influenced medical crowdfunding and global medical missions. The growing practice of medical crowdfunding in Canada, for instance, can be understood through the lens of disparities in health care access and the role of digital platforms in reducing this gap. These platforms collapse spatial divides, exposing distant donors to the health needs of people not within their own social networks. This contextualization highlights the complex interconnections that drive people to seek alternative sources of health funding and support. Similarly, the motivations and activities of medical and pre-medical students in global medical missions are also shaped by spatial, socio-economic and systemic dynamics. Spatial thinking helps to situate the health care challenges faced by marginalized communities in Ghana and the transformative potential of digital platforms,

65

transnational volunteers and global medical missions in addressing these disparities. In bridging these geographic and socio-economic gaps, the analysis presented in Chapter 3 highlights the importance of ethical practices and responsible engagements.

Finally, the use of qualitative approaches helped to gain in-depth insights into these two practices. In the study on medical crowdfunding (Chapter 2), twelve semistructured interviews offered a rich, nuanced understanding of the roles and responsibilities of Canadian campaigners, especially concerning privacy safeguard. Similarly, analyzing campaign narratives from GoFundMe through comparative thematic analysis in Chapter 3 enabled a comprehensive examination of the motivations, aspirations, and ethical challenges faced by medical and pre-medical students in global health.

4.4 Future Research Directions

The findings of both analyses lay the foundation for future research endeavors. These analyses offer diverse perspectives on ethical considerations, equity, motivations, and impacts within the context of health geography. Here I identify potential areas for future research that bridge the findings of these two analyses. These directions have the potential to deepen and broaden our understanding and perspectives on the complex interplay between medical crowdfunding and global medical missions.

One significant area for future study lies in exploring the ethical implications of using crowdfunding platforms to finance global medical missions. In learning about the roles and associated role responsibilities of campaigners in safeguarding privacy, future research could delve into the ethical implications inherent in students sharing personal and health information of people living in marginalized communities to inspire donations for their global medical mission initiatives. Such an exploration demands careful consideration that examines personal information and the potential risks to privacy that may accompany the dissemination of sensitive information on public platforms like GoFundMe.

Future research can meaningfully focus on assessing the effectiveness and sustainability of global medical missions funded through crowdfunding platforms. This research could entail evaluating the long-term health outcomes of these community

development initiatives. Understanding the impact of medical missions funded through crowdfunding would inform future interventions and policy decisions, as well as guidance on the appropriateness of the use of crowdfunding to support participating in this global health practice. These policies could provide insights into promoting sustainable development and capacity-building initiatives in marginalized communities. Future research can empower communities and foster partnerships with local stakeholders, to address their own health needs and contribute to long-term resilience.

Additional References

- Ahlers, G. K. C., Cumming, D., Günther, C., & Schweizer, D. (2015). Signaling in Equity Crowdfunding. *Entrepreneurship Theory and Practice*, 39(4), 955–980. https://doi.org/10.1111/etap.12157
- Barcelos, C. A. (2019). 'Bye-bye boobies': Normativity, deservingness and medicalisation in transgender medical crowdfunding. *Culture, Health & Sexuality*, *21*(12), 1394–1408. https://doi.org/10.1080/13691058.2019.1566971
- Barcelos, C. A., & Budge, S. L. (2019). Inequalities in Crowdfunding for Transgender Health Care. *Transgender Health*, *4*(1), 81–88. https://doi.org/10.1089/trgh.2018.0044
- Bashir, I., & Banze, R. (2020). Crowdfunding: The Story of People. Project Nile.
- Bassani, G., Marinelli, N., & Vismara, S. (2019). Crowdfunding in healthcare. *The Journal of Technology Transfer*, *44*(4), 1290–1310. https://doi.org/10.1007/s10961-018-9663-7
- Bayeck, R. Y. (2022). Positionality: The Interplay of Space, Context and Identity. International Journal of Qualitative Methods, 21, 16094069221114745. https://doi.org/10.1177/16094069221114745
- Belleflamme, P., Lambert, T., & Schwienbacher, A. (2013). Individual crowdfunding practices. *Venture Capital.* https://www.tandfonline.com/doi/full/10.1080/13691066.2013.785151
- Berliner, L. S., & Kenworthy, N. J. (2017). Producing a worthy illness: Personal crowdfunding amidst financial crisis. Social Science & Medicine, 187, 233–242. https://doi.org/10.1016/j.socscimed.2017.02.008
- Bluth, R. (2019, January 16). GoFundMe CEO: 'Gigantic Gaps' In Health System Showing Up In Crowdfunding. *KFF Health News*. https://kffhealthnews.org/news/gofundme-ceo-gigantic-gaps-in-health-systemshowing-up-in-crowdfunding/
- Bone, J., & Baeck, P. (n.d.). CROWDFUNDING GOOD CAUSES.
- Bourke, B. (2014). Positionality: Reflecting on the Research Process. *The Qualitative Report*. https://doi.org/10.46743/2160-3715/2014.1026
- Braveman, P. (2006). HEALTH DISPARITIES AND HEALTH EQUITY: Concepts and Measurement. *Annual Review of Public Health*, *27*(1), 167–194. https://doi.org/10.1146/annurev.publhealth.27.021405.102103
- Braveman, P. (2014). What are Health Disparities and Health Equity? We Need to Be Clear. *Public Health Reports*, *129*(1_suppl2), 5–8. https://doi.org/10.1177/00333549141291S203
- Brown, T., Andrews, G. J., Cummins, S., Greenhough, B., Lewis, D., & Power, A. (2017). *Health Geographies: A Critical Introduction*. John Wiley & Sons.
- Brown, T., & Moon, G. (2012). Geography and global health. *The Geographical Journal*, *178*(1), 13–17. https://doi.org/10.1111/j.1475-4959.2011.00425.x

- Campeau, K., & Thao, Y. (2023). "It Makes Everything Just Another Story": A Mixed Methods Study of Medical Storytelling on GoFundMe. *Technical Communication Quarterly*. https://www.tandfonline.com/doi/full/10.1080/10572252.2022.2047792
- Cerullo, M. (2019, January 28). *One-third of all GoFundMe donations help people pay for medical care—CBS News*. https://www.cbsnews.com/news/crushed-bymedical-bills-many-americans-go-online-to-beg-for-help/
- Choy, K., & Schlagwein, D. (2016). Crowdsourcing for a better world: On the relation between IT affordances and donor motivations in charitable crowdfunding. *Information Technology & People*, 29(1), 221–247. https://doi.org/10.1108/ITP-09-2014-0215
- Clarke, V., & Braun, V. (2017). Thematic analysis. *The Journal of Positive Psychology*. https://www.tandfonline.com/doi/full/10.1080/17439760.2016.1262613
- Collins, H., & McNulty, Y. (2020). Insider status: (Re)framing researcher positionality in international human resource management studies. *German Journal of Human Resource Management*, *34*(2), 202–227. https://doi.org/10.1177/2397002220908425
- Coutrot, I. P., Smith, R., & Cornelsen, L. (2020). Is the rise of crowdfunding for medical expenses in the United Kingdom symptomatic of systemic gaps in health and social care? *Journal of Health Services Research & Policy*, *25*(3), 181–186. https://doi.org/10.1177/1355819619897949
- Crooks, V. A., Andrews, G. J., Pearce, J., & Snyder, M. (2018). Introducing the Routledge Handbook of Health Geography. In *Routledge Handbook of Health Geography*. Routledge.
- Curtis, S., & Riva, M. (2010). Health geographies I: Complexity theory and human health. *Progress in Human Geography*, *34*(2), 215–223. https://doi.org/10.1177/0309132509336026
- Debatin, B., Lovejoy, J. P., Horn, A.-K., & Hughes, B. N. (2009). Facebook and Online Privacy: Attitudes, Behaviors, and Unintended Consequences. *Journal of Computer-Mediated Communication*, *15*(1), 83–108. https://doi.org/10.1111/j.1083-6101.2009.01494.x
- Doran, C., Crooks, V., & Snyder, J. (2022). Qualitatively exploring the intersection of health and housing needs in Canadian crowdfunding campaigns. *BMC Public Health*, 22(1), 176. https://doi.org/10.1186/s12889-022-12599-x
- Dressler, G., & Kelly, S. A. (2018). Ethical implications of medical crowdfunding: The case of Charlie Gard. *Journal of Medical Ethics*, *44*(7), 453–457. https://www.jstor.org/stable/26879762
- Dummer, T. J. B. (2008). Health geography: Supporting public health policy and planning. *Canadian Medical Association Journal*, *178*(9), 1177–1180. https://doi.org/10.1503/cmaj.071783
- Dushnitsky, G., & Marom, D. (2013). Crowd Monogamy. *Business Strategy Review*, 24(4), 24–26. https://doi.org/10.1111/j.1467-8616.2013.00990.x
- Erubami, J., Tebekaemi, P., & Egbon, K. (2023). *Perception of Online Medical Crowdfunding Posts among Social Media Users in Nigeria.* 8, 2023.

- Fraser, S., Bhaumik, S. K., & Wright, M. (2015). What do we know about entrepreneurial finance and its relationship with growth? *International Small Business Journal*, 33(1), 70–88. https://doi.org/10.1177/0266242614547827
- Fritz, N., & Gonzales, A. (2018). Privacy at the Margins Not the Normal Trans Story: Negotiating Trans Narratives While Crowdfunding at the Margins. *International Journal of Communication*, 12(0), Article 0. https://ijoc.org/index.php/ijoc/article/view/7049
- Fulton, H. J. (n.d.). *GoFundTransitions: Narratives of Transnormativity and the Limits of Crowdfunding Livable Futures.*
- Gatrell, A. C., & Elliott, S. J. (2014). *Geographies of Health: An Introduction*. John Wiley & Sons.
- Glas, A. (2021). Positionality, Power, and Positions of Power: Reflexivity in Elite Interviewing. *PS: Political Science & Politics*, *54*(3), 438–442. https://doi.org/10.1017/S1049096520002048
- GoFundMe. (2017, July 26). GoFundMe in Canada. *GoFundMe Stories*. https://medium.com/gofundme-stories/gofundme-in-canada-7512972a830
- Gonzales, A. L., Kwon, E. Y., Lynch, T., & Fritz, N. (2018). "Better everyone should know our business than we lose our house": Costs and benefits of medical crowdfunding for support, privacy, and identity. *New Media & Society*, *20*(2), 641– 658. https://doi.org/10.1177/1461444816667723
- Gould, M. (2009). Modeling Chronic Disease. In *A Companion to Health and Medical Geography* (pp. 133–153). John Wiley & Sons, Ltd. https://doi.org/10.1002/9781444314762.ch8
- Guo, Q., Zhou, S., Wu, Y., Peng, Z., & Ma, X. (2022). Understanding and Modeling Viewers' First Impressions with Images in Online Medical Crowdfunding Campaigns. *CHI Conference on Human Factors in Computing Systems*, 1–20. https://doi.org/10.1145/3491102.3501830
- Gustke, C. (2015, January 30). Managing Health Costs With Crowdfunding. *The New York Times*. https://www.nytimes.com/2015/01/31/business/managing-health-costs-with-crowdfunding.html
- Hazen, H., & Anthamatten, P. (2019). *An Introduction to the Geography of Health* (2nd ed.). Routledge. https://doi.org/10.4324/9780429024115
- Herna, H., Hiswanti, H., Hidayaturahmi, H., & Putri, A. A. (2019). Strategi Komunikasi Media Sosial untuk Mendorong Partisipasi Khalayak pada Situs Online kitabisa.com. *Jurnal Komunikasi Pembangunan*, *17*(2), Article 2. https://doi.org/10.46937/17201926843
- Hommerová, D. (2020). Crowdfunding as a New Model of Nonprofit Funding. In *Financing Nonprofit Organizations*. Routledge.
- Horta, H., Meoli, M., & Vismara, S. (2022). Crowdfunding in higher education: Evidence from UK Universities. *Higher Education*, *83*(3), 547–575. https://doi.org/10.1007/s10734-021-00678-8
- Hossain, M., & Oparaocha, G. O. (2017). Crowdfunding: Motives, Definitions, Typology and Ethical Challenges. *Entrepreneurship Research Journal*, 7(2). https://doi.org/10.1515/erj-2015-0045

- Hou, X., Wu, T., Chen, Z., & Zhou, L. (2022). Success Factors of Medical Crowdfunding Campaigns: Systematic Review. *Journal of Medical Internet Research*, 24(3), e30189. https://doi.org/10.2196/30189
- Igra, M. (2022). Donor Financial Capacity Drives Racial Inequality in Medical Crowdsourced Funding. *Social Forces*, *100*(4), 1856–1883. https://doi.org/10.1093/sf/soab076
- Irvine, A. (2011). Duration, Dominance and Depth in Telephone and Face-to-Face Interviews: A Comparative Exploration. *International Journal of Qualitative Methods*, *10*(3), 202–220. https://doi.org/10.1177/160940691101000302
- Jin, P. (2019). Medical crowdfunding in China: Empirics and ethics. *Journal of Medical Ethics*, *45*(8), 538–544. https://doi.org/10.1136/medethics-2018-105054
- Kearns, R., & Milligan, C. (2020). Placing therapeutic landscape as theoretical development in *Health & Place*. *Health & Place*, *61*, 102224. https://doi.org/10.1016/j.healthplace.2019.102224
- Kearns, R., & Moon, G. (2002). From medical to health geography: Novelty, place and theory after a decade of change. *Progress in Human Geography*, 26(5), 605– 625. https://doi.org/10.1191/0309132502ph389oa
- Kenworthy, N., Dong, Z., Montgomery, A., Fuller, E., & Berliner, L. (2020). A crosssectional study of social inequities in medical crowdfunding campaigns in the United States. *PLOS ONE*, *15*(3), e0229760. https://doi.org/10.1371/journal.pone.0229760
- Kenworthy, N., & Igra, M. (2022). Medical Crowdfunding and Disparities in Health Care Access in the United States, 2016–2020. *American Journal of Public Health*, *112*(3), 491–498. https://doi.org/10.2105/AJPH.2021.306617
- Kenworthy, N. J. (2019a). Crowdfunding and global health disparities: An exploratory conceptual and empirical analysis. *Globalization and Health*, *15*(S1), 71. https://doi.org/10.1186/s12992-019-0519-1
- Kenworthy, N. J. (2019b). Crowdfunding and global health disparities: An exploratory conceptual and empirical analysis. *Globalization and Health*, *15*(S1), 71. https://doi.org/10.1186/s12992-019-0519-1
- Kubheka, B. Z. (2020). Bioethics and the use of social media for medical crowdfunding. *BMC Medical Ethics*, *21*(1), 96. https://doi.org/10.1186/s12910-020-00521-2
- Lau, K. L., Chew, B. C., Maliki, A., & Hafizuddin, H. (2018). Crowdfunding for Academic Projects: A Case in Public Universities of Malaysia. *Journal of Advanced Manufacturing Technology (JAMT)*, *12*(1(1)), 273–284. https://jamt.utem.edu.my/jamt/article/view/3941
- Lee, S., & Lehdonvirta, V. (2022). New digital safety net or just more 'friendfunding'? Institutional analysis of medical crowdfunding in the United States. *Information, Communication & Society*, 25(8), 1151–1175. https://doi.org/10.1080/1369118X.2020.1850838
- Li, L. (2022). How to tackle variations in elite interviews: Access, strategies, and power dynamics. *Qualitative Research*, *22*(6), 846–861. https://doi.org/10.1177/1468794121994475
- Liu, Q., Wang, L., Zhou, J., Wu, W., & Li, Y. (2022). Factors Influencing Donation Intention to Personal Medical Crowdfunding Projects Appearing on MSNS.

Journal of Organizational and End User Computing (JOEUC), 34(4), 1–26. https://doi.org/10.4018/JOEUC.287572

- Liu, Y., Yu, S., & Ravichandran, T. (n.d.). *DIRECT GAZE, STORY NARRATION, AND ONLINE MEDICAL CROWDFUNDING OUTCOMES.*
- Livingstone, A., Servais, L., & Wilkinson, D. J. C. (2023). The ethics of crowdfunding in paediatric neurology. *Developmental Medicine & Child Neurology*, 65(4), 450– 455. https://doi.org/10.1111/dmcn.15442
- Lublóy, Á. (2020). Medical crowdfunding in a healthcare system with universal coverage: An exploratory study. *BMC Public Health*, *20*(1), 1672. https://doi.org/10.1186/s12889-020-09693-3
- Lukk, M., Schneiderhan, E., & Soares, J. (2018). Worthy? Crowdfunding the Canadian Health Care and Education Sectors. *Canadian Review of Sociology/Revue Canadienne de Sociologie*, *55*(3), 404–424. https://doi.org/10.1111/cars.12210
- Manohar, N., Bhole, S., Liamputtong, P., & Arora, A. (2017). Researcher positionality in cross-cultural and sensitive research. In: Liamputtong P. (eds) Handbook of Research Methods in Health Social Sciences (pp. 1-15). Springer, Singapore. https://doi.org/10.1007/978-981-10-2779-6_35-1.
- Mayer, J. D. (2009). Medical Geography. In A Companion to Health and Medical Geography (pp. 33–54). John Wiley & Sons, Ltd. https://doi.org/10.1002/9781444314762.ch3
- McKinlay, J. B. (2022). Issues in the Political Economy of Health Care. Routledge.
- Meade, M. S., & Emch, M. (2010). *Medical Geography, Third Edition*. Guilford Press.
- Medical crowdfunding and the virtuous donor—Moore—2019—Bioethics—Wiley Online Library. (n.d.). Retrieved April 4, 2024, from https://onlinelibrary.wiley.com/doi/abs/10.1111/bioe.12527?casa_token=V6M5a2T SpX4AAAAA%3AV0neH5NI610L503YGwuNuUNBOIbKsEmOx4JAXYhaT-NZ522 Ns-xrtIVUBaWfyRkUdw088TdYR4d9Q
- Mollick, E. (2014). The dynamics of crowdfunding: An exploratory study. *Journal of Business Venturing*, 29(1), 1–16. https://doi.org/10.1016/j.jbusvent.2013.06.005
- Moore, A. D. (2003). Privacy: Its Meaning and Value. *American Philosophical Quarterly*, 40(3), 215–227. https://www.jstor.org/stable/20010117
- Moysidou, K., & Cohen Chen, S. (2023). Inducing collective action intentions for healthcare reform through medical crowdfunding framing. *Social Science & Medicine*, *333*, 116090. https://doi.org/10.1016/j.socscimed.2023.116090
- Muhammad, M., Wallerstein, N., Sussman, A. L., Avila, M., Belone, L., & Duran, B. (2015). Reflections on Researcher Identity and Power: The Impact of Positionality on Community Based Participatory Research (CBPR) Processes and Outcomes. *Critical Sociology*, *41*(7–8), 1045–1063. https://doi.org/10.1177/0896920513516025
- Neuwelt-Kearns, C., Baker, T., Calder-Dawe, O., Bartos, A. E., & Wardell, S. (2024). Getting the crowd to care: Marketing illness through health-related crowdfunding in Aotearoa New Zealand. *Environment and Planning A: Economy and Space*, 56(1), 311–329. https://doi.org/10.1177/0308518X211009535
- NW, 1615 L. St, Washington, S. 800, & Inquiries, D. 20036 U.-419-4300 | M.-857-8562 | F.-419-4372 | M. (n.d.). Social Media and News Fact Sheet. *Pew Research*

Center's Journalism Project. Retrieved March 27, 2024, from https://www.pewresearch.org/journalism/fact-sheet/social-media-and-news-fact-sheet/

O'Boyle, A. (2018). Encounters with identity: Reflexivity and positioning in an interdisciplinary research project. *International Journal of Research & Method in Education*.

https://www.tandfonline.com/doi/full/10.1080/1743727X.2017.1310835

- O'Connor, P. (2004). The conditionality of status: Experience-based reflections on the insider/outsider issue. *Australian Geographer*. https://doi.org/10.1080/0004918042000249476
- Paechter, C. (2013). Researching sensitive issues online: Implications of a hybrid insider/outsider position in a retrospective ethnographic study. *Qualitative Research*, *13*(1), 71–86. https://doi.org/10.1177/1468794112446107
- Parent, W. A. (1983). Recent Work on the Concept of Privacy. *American Philosophical Quarterly*, *20*(4), 341–355. https://www.jstor.org/stable/20014016
- Parent, W. A. (2001). Privacy, Morality, and the Law. In *Privacy*. Routledge.
- Parhankangas, A., Mason, C., & Landström, H. (2019). Crowdfunding: An introduction. In H. Landström, A. Parhankangas, & C. Mason (Eds.), *Handbook of Research on Crowdfunding*. Edward Elgar Publishing. https://doi.org/10.4337/9781788117210.00005
- Park, J., Lee, S. J., Lee, J., & Krishnan, V. (2020). Making Charity Crowdfunding Work: An Empirical Study of Project Promotion with Subjective Sorting for Improving Donor Contributions (SSRN Scholarly Paper 3751191). https://doi.org/10.2139/ssrn.3751191
- Paulus, T. M., & Roberts, K. R. (2018). Crowdfunding a "Real-life Superhero": The construction of worthy bodies in medical campaign narratives,. *Discourse, Context & Media*, 21, 64–72. https://doi.org/10.1016/j.dcm.2017.09.008
- Paust, S. (2021). "Struggling Right Along With You": Precarity and the Power of Medical Crowdfunding Campaign Narratives. *Connections: A Journal of Language, Media and Culture*, 2(1), 30–41. https://doi.org/10.29173/connections37
- Popper, N., & Lorenz, T. (2020, March 26). GoFundMe Confronts Coronavirus Demand. *The New York Times*. https://www.nytimes.com/2020/03/26/style/gofundmecoronavirus.html
- Proelss, J., Schweizer, D., & Zhou, T. (2021). Economics of philanthropy—Evidence from health crowdfunding. *Small Business Economics*, *57*(2), 999–1026. https://doi.org/10.1007/s11187-020-00336-w
- Rajwa, P., Hopen, P., Wojnarowicz, J., Kaletka, J., Paszkiewicz, I., Lach-Wojnarowicz, O., Mostafaei, H., Krajewski, W., D'Andrea, D., Małkiewicz, B., Paradysz, A., Ploussard, G., Moschini, M., Breyer, B. N., Pradere, B., Shariat, S. F., & Leapman, M. S. (2022). Online Crowdfunding for Urologic Cancer Care. *Cancers*, *14*(17), 4104. https://doi.org/10.3390/cancers14174104
- Reddy, S. K., & Tan, Y. H. (2017). Crowdfunding: Financing Ventures in the Digital Era. *NIM Marketing Intelligence Review*, 9(1), 36–41. https://doi.org/10.1515/gfkmir-2017-0006

- Rosenberg, M. (2014). Health geography I: Social justice, idealist theory, health and health care. *Progress in Human Geography*, *38*(3), 466–475. https://doi.org/10.1177/0309132513498339
- Rosenberg, M. (2016). Health geography II: 'Dividing' health geography. *Progress in Human Geography*, *40*(4), 546–554. https://doi.org/10.1177/0309132515581094
- Rosenberg, M. (2017). Health geography III: Old ideas, new ideas or new determinisms? *Progress in Human Geography*, *41*(6), 832–842. https://doi.org/10.1177/0309132516670054
- Saleh, S. N., Ajufo, E., Lehmann, C. U., & Medford, R. J. (2020). A Comparison of Online Medical Crowdfunding in Canada, the UK, and the US. *JAMA Network Open*, 3(10), e2021684. https://doi.org/10.1001/jamanetworkopen.2020.21684
- Schneiderhan, E., & Lukk, M. (2023). *GoFailMe: The Unfulfilled Promise of Digital Crowdfunding*. Stanford University Press.
- Sear, M. C. (n.d.). *Ethical Issues in Use of Crowdfunding to Finance Healthcare*.
- Seh, A. H., Zarour, M., Alenezi, M., Sarkar, A. K., Agrawal, A., Kumar, R., & Ahmad Khan, R. (2020). Healthcare Data Breaches: Insights and Implications. *Healthcare*, 8(2), 133. https://doi.org/10.3390/healthcare8020133
- Shantz, E., & Elliott, S. J. (2021). From social determinants to social epigenetics: Health geographies of chronic disease. *Health & Place*, 69, 102561. https://doi.org/10.1016/j.healthplace.2021.102561
- Siemens, A., Rustja, S., Doiron, R. C., & Siemens, D. R. (2021). *A Cross-sectional Comparison of Utilization of Medical Crowdfunding for Global Health* [Preprint]. Public and Global Health. https://doi.org/10.1101/2021.10.05.21264582
- Sisler, J. (2012). Crowdfunding for medical expenses. *Canadian Medical Association Journal*, 184(2), E123–E124. https://doi.org/10.1503/cmaj.109-4084
- Snyder, J. (2016a). Crowdfunding FOR MEDICAL CARE: *Ethical Issues in an Emerging Health Care Funding Practice. Hastings Center Report*, *46*(6), 36–42. https://doi.org/10.1002/hast.645
- Snyder, J. (2016b). Crowdfunding FOR MEDICAL CARE: Ethical Issues in an Emerging Health Care Funding Practice. *Hastings Center Report*, *46*(6), 36–42. https://doi.org/10.1002/hast.645
- Snyder, J. (2023). Appealing to the Crowd: The Ethical, Political, and Practical Dimensions of Donation-Based Crowdfunding. Oxford University Press.
- Snyder, J., & Crooks, V. A. (2021). Is there room for privacy in medical crowdfunding? *Journal of Medical Ethics*, 47(12), e49–e49. https://doi.org/10.1136/medethics-2020-106676
- Snyder, J., & Grewal, A. (n.d.). Abortion-related crowdfunding post-Dobbs. *Perspectives* on Sexual and Reproductive Health, n/a(n/a). https://doi.org/10.1111/psrh.12249
- Snyder, J., Mathers, A., & Crooks, V. A. (2016). Fund my treatment!: A call for ethicsfocused social science research into the use of crowdfunding for medical care. *Social Science & Medicine*, *169*, 27–30. https://doi.org/10.1016/j.socscimed.2016.09.024

- Snyder, J., & Turner, L. (2019). Crowdfunding for stem cell-based interventions to treat neurologic diseases and injuries. *Neurology*, *93*(6), 252–258. https://doi.org/10.1212/WNL.00000000007838
- Snyder, J., Zenone, M., & Caulfield, T. (2020). Crowdfunding for complementary and alternative medicine: What are cancer patients seeking? *PLOS ONE*, *15*(11), e0242048. https://doi.org/10.1371/journal.pone.0242048
- Snyder, J., Zenone, M., Crooks, V., & Schuurman, N. (2020). What Medical Crowdfunding Campaigns Can Tell Us About Local Health System Gaps and Deficiencies: Exploratory Analysis of British Columbia, Canada. *Journal of Medical Internet Research*, 22(5), e16982. https://doi.org/10.2196/16982
- Solotke, M. T., Brussel Faria, N., Karim, H., Roy, S., Ross, J. S., & Cron, J. (2020). Exploring crowdfunding campaigns for abortion services. *Contraception*, *102*(1), 18–22. https://doi.org/10.1016/j.contraception.2020.02.008
- Spencer, K., & Grace, M. (2016). Social Foundations of Health Care Inequality and Treatment Bias. *Annual Review of Sociology*, *42*. https://doi.org/10.1146/annurev-soc-081715-074226
- Stacy Blythe, L. W. (2012, May 31). *The challenges of being an insider in storytelling research* [Text]. Nurse Researcher. https://doi.org/10.7748/nr2013.09.21.1.8.e333
- Supekar, D. (2023, March 4). *Benefits of Promoting Your Medical Crowdfunding Campaign on Social Media* | *Ketto*. https://www.ketto.org/blog/benefits-of-promoting-medical-crowdfunding-campaign-on-social-media
- Tanner, C., Munsie, M., Sipp, D., Turner, L., & Wheatland, C. (2019). The politics of evidence in online illness narratives: An analysis of crowdfunding for purported stem cell treatments. *Health*, 23(4), 436–457. https://doi.org/10.1177/1363459319829194
- Timmermans, S., & Almeling, R. (2009). Objectification, standardization, and commodification in health care: A conceptual readjustment. Social Science & Medicine, 69(1), 21–27. https://doi.org/10.1016/j.socscimed.2009.04.020
- Vassell, A., Crooks, V. A., & Snyder, J. (2021). What was lost, missing, sought and hoped for: Qualitatively exploring medical crowdfunding campaign narratives for Lyme disease. *Health*, 25(6), 707–721. https://doi.org/10.1177/1363459320912808
- Volna, P. (2024, February 9). From Crisis to Compassion: Exploring the Impact of Medical Crowdfunding. LenderKit. https://lenderkit.com/blog/from-crisis-tocompassion-exploring-the-impact-of-medical-crowdfunding/
- Wade, M. (2023). 'The giving layer of the internet': A critical history of GoFundMe's reputation management, platform governance, and communication strategies in capturing peer-to-peer and charitable giving markets. *Journal of Philanthropy and Marketing*, 28(4), e1777. https://doi.org/10.1002/nvsm.1777
- Wang, J., Zhang, X., & Luo, J. (2021). *How COVID-19 Has Changed Crowdfunding: Evidence From GoFundMe* (arXiv:2106.09981). arXiv. http://arxiv.org/abs/2106.09981
- Wardell, S., & Withey-Rila, C. (2024). A critical analysis of trans-visibility through online medical crowdfunding. *Social Science & Medicine*, *345*, 116682. https://doi.org/10.1016/j.socscimed.2024.116682

- Wright, E. R., & Perry, B. L. (2010). Medical Sociology and Health Services Research: Past Accomplishments and Future Policy Challenges. *Journal of Health and Social Behavior*, *51*(1_suppl), S107–S119. https://doi.org/10.1177/0022146510383504
- Xu, K., & Wang, X. (2020). "Kindhearted People, Please Save My Family": Narrative Strategies for New Media Medical Crowdfunding. *Health Communication*. https://www.tandfonline.com/doi/full/10.1080/10410236.2019.1654173
- Young, M. J., & Scheinberg, E. (2017). The Rise of Crowdfunding for Medical Care: Promises and Perils. *JAMA*, *317*(16), 1623. https://doi.org/10.1001/jama.2017.3078
- Zenone, M. A., & Snyder, J. (2020). Crowdfunding abortion: An exploratory thematic analysis of fundraising for a stigmatized medical procedure. *BMC Women's Health*, *20*(1), 90. https://doi.org/10.1186/s12905-020-00938-2
- Zenone, M., & Snyder, J. (2019). Fraud in Medical Crowdfunding: A Typology of Publicized Cases and Policy Recommendations. *Policy & Internet*, *11*(2), 215– 234. https://doi.org/10.1002/poi3.188
- Zheng, L., & Jiang, L. (2022). Influence of Narrative Strategies on Fundraising Outcome: An Exploratory Study of Online Medical Crowdfunding. *Journal of Social Computing*, *3*(4), 303–321. https://doi.org/10.23919/JSC.2022.0015
- Zhou, J., Yao, Y., Li, Y., Wu, J., & Liu, Q. (1 C.E.). Medical Crowdfunding Campaign Sharing Behaviour on Mobile Social Media: The Social Influence Perspective. *Https://Services.lgiGlobal.Com/Resolvedoi/Resolve.Aspx?Doi=10.4018/JOEUC.3* 09988. https://www.igi-global.com/article/medical-crowdfunding-campaignsharing-behaviour-on-mobile-social-media/309988

Appendix A. Campaign Maker Interview Guide

Participant verbal consent

Hi, my name is Benjamin Nii Badu Lartey and I am a masters student at the Department of Geography, Simon Fraser University. I'm helping conduct research on how people who have used crowdfunding think about issues related to privacy under the supervision of Drs. Jeremy Snyder and Valorie Crooks at Simon Fraser University.

Have you gotten a chance to review the consent document we sent you?

Before I start the interview, I have a few questions to see if you are willing to take part in the study:

- Have you read and understood the information in this consent form?
- Have you had enough time to think about the information provided?
- Have you been able to ask for advice if needed?
- Have you been able to ask questions and have had satisfactory responses to your questions?
- Do you agree to have the audio from this interview digitally recorded?
- Do you understand that all of the information collected will be kept confidential and that the results will only be used for scientific purposes?
- Do you understand that your participation in this study is voluntary?
- Do you understand that you are completely free at any time to refuse to participate or to withdraw from this study?
- Do you understand that there is no guarantee that this study will provide any benefits to you?
- Are you willing to participate in the study as described here and in the consent form?
- Would you like to receive a copy of any publications developed through this interview?
- About You
 - In what province do you live?
 - What gender to you identify as?
 - What is your age range?
 - 18-29

- **30-39**
- 40-49
- **50-59**
- 60-69
- 70 or older
- What is your family income range?
 - 0-\$24,999
 - \$25,000-\$49,999
 - **\$50,000-\$74,999**
 - \$75,000-\$99,999
 - **\$100,000-\$124,999**
 - \$125,000-\$149,000
 - \$150,000-\$200,000
 - \$200,000-\$249,000
 - \$250,000+
- What is your educational background?
 - Some secondary
 - Completed secondary
 - Some post-secondary
 - Completed post-secondary
 - Some graduate
 - Completed graduate

• Deciding to Crowdfund

- What were you trying to raise money for?
- Why did you choose crowdfunding as a way to raise this money?
- Did you try any other means of raising this money, either before or after the crowdfunding campaign?
- How did you become aware of crowdfunding as an option?
- Had you ever donated to a crowdfunding campaign before starting your own?

- Did you try to share your campaign as widely as possible or keep it within friends and family? Why?
- Did you regularly update your campaign with additional information? Why or why not?
- How did you determine the financial goal of the campaign?

• Results of the Campaign

- Did you meet your crowdfunding goal?
- What factors do you think contributed to getting people to donate? What factors do you think held people back from donating?
 - Did your campaign receive any wider attention, such as media coverage?
- Is there anything you would do differently in terms of running your crowdfunding campaign?

I'd like to ask you some questions about how you manage your private information in your life generally and how you did so in your crowdfunding campaign. Private information can be many different things, like your age, photos of yourself, past experiences, and information about your family members. Many people have very different approaches to privacy and care more or less about what is private and what is public. What we have in mind is the difference between aspects of yourself and your loved ones that you are comfortable having open to the public compared to those aspects you want to have control over who knows or sees.

• Privacy in Everyday Life

- In general, how open are you about sharing details about your private life with friends and family?
- Do you use social media? If so, do you share personal details? Images? Videos?
 - Do your decisions to share personal details vary between social media types (e.g., Instagram vs. Facebook), and why?
- What personal information are you more reluctant to share with others and what are you more open about normally?
 - Your location (e.g., tracked via phone)?
 - Your address?
 - Your phone number?
 - Your birth date, including year?

- Your credit scores?
- Your income?
- What internet sites you visit?
- Your purchasing history?
- Your email correspondence?
- Your medical history?
- Your employment history?
- How do you decide what personal information to share with others? Do you have specific rules like no pictures of your kids online? No birthdates? Nothing without permission? Anything goes?

• Privacy in Crowdfunding

- Given what we've already talked about in relation to privacy, in general what kinds of privacy issues do you think exist in relation to crowdfunding?
 - Were you concerned about any of these issues in relation to your campaign?
 - If so, did these concerns change throughout your experience of campaigning?
- How did you determine what personal details you would post in the campaign description?
 - Do you remember actively deciding not to include details in the campaign because you were concerned that they were too revealing? Please tell me about this.
- How did you decide what photos and videos you would post in the campaign?
 - Do you remember actively deciding not to include images or videos in the campaign because you were concerned that they were too revealing? Please tell me about this.
- Were there particular topics that felt more sensitive or private than others? Medical? Family? Financial?
- Did you feel like you had complete control over what personal details were disclosed in your campaign?
 - Was there any pressure to share as much detail as possible in order to meet your goals? If so, how did that make you feel? How did you respond to this pressure?

 Did you feel like you were fully in control over what you shared? If so, why is that?

• Privacy when Raising Money for Others

- How did you come to organize the campaign?
 - Did the campaign recipient consent to the campaign? Provide information for you to post? Provide photos to post?
- Were you in regular communication with the campaign recipient (or their guardian) regarding the campaign?
 - About what?
- Did you and the beneficiary discuss any issues that you felt were relevant to privacy, and what were they?
- How was the recipient involved in deciding how personal information was shared in the campaign or did you need to make some of these decisions on your own? Were they most involved, equally involved, or less involved?
 - Did their involvement help with or complicate how decisions over information sharing and privacy were made? How so?

Reflecting Back

- Is there anything you would do differently about crowdfunding in general and sharing personal information in your campaign specifically?
- What advice around privacy would you give to another person considering crowdfunding?
- Who do you think has a responsibility to make any changes or give any advice around privacy in crowdfunding?

Thank you for your time. Is there anything that we didn't cover that you think I should know about your experience with crowdfunding, especially as it relates to privacy?