PRIMARY CARE INTERVENTIONS TO ADDRESS UNMET ECONOMIC NEEDS

PRIMARY CARE-BASED INTERVENTIONS TO ADDRESS PATIENTS' UNMET ECONOMIC NEEDS

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A Thesis Submitted to the School of Graduate Studies in Partial Fulfilment of the Requirements for the Degree of Doctor of Philosophy

McMaster University DOCTOR OF PHILSOPHY (2022), Health, Aging & Society, McMaster University, Hamilton, Ontario

TITLE: Primary care-based interventions to address patients' unmet economic needs

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PAGES: vii, 1–216

Lay Abstract

People's health is affected by the conditions of daily life. In many high-income countries, poverty is known to adversely affect people's health. Some primary care practices try to help patients who are experiencing poverty with non-medical measures, such as increasing their income or reducing their expenses. This study comprises three parts. The first part is a review of such interventions in high-income countries. This gives a broad overview of what kinds of interventions there are—from screening patients to referring them for help. The second part is a case study of a primary care practice in Toronto, Canada, that has a dedicated team to help patients who do not have enough money to meet their daily needs. The third part is a study of the barriers to doing so in Hong Kong, where there are high levels of poverty, but no such interventions.

Abstract

Poverty is acknowledged as the largest single social determinant of health in many high-income countries. Research into income interventions in primary care settings to address the health impact of poverty is a nascent and evolving field, with many gaps in knowledge. This thesis sets out to fill three related knowledge gaps in three separate papers. The first is a scoping review of the literature, which examines existing interventions currently in use in high-income countries. This review provides a unique overview of income interventions across different primary care settings, gleaned from over 200 papers, focusing on interventions targeting economic needs, and investigating interventions in the primary care setting across the whole spectrum, from screening patients, and collecting and managing the data generated in the process, to referring patients to external services, and directly intervening to address patients' needs. The second is a case study of an income security health promotion service in a family practice in Toronto, Ontario, Canada. The study is the first to gather perspectives of key informants involved in this service, and to understand its origins, context and functioning. The study explores the external forces and contextual factors that have shaped the origin and development of the service, and offers important insights into how to create and sustain such a programme in other primary care settings. The third paper looks at an environment with extremely high rates of poverty–Hong Kong–where there are no such interventions in place. Through interviews with family physicians, the study explores the multiple barriers to primary care responsiveness to poverty, as well as potential facilitators and avenues for change. In doing so, the paper offers pointers for the introduction of such interventions not only in Hong Kong, but also in other high-income settings with high levels of inequality.

Acknowledgements
Thanks first go to my supervisor, Dr. Jim Dunn, who, six years ago, said yes to taking me on as a supervisee and student, enabling me to take the first step of this 10,000 mile journey. I could not have completed this process without his guidance throughout. Along the way, he has remained patient, tolerant, cheerful, and understanding, as I have progressed, stalled, pressed on, and doubted whether I would arrive at my destination, always reassuring me that it was within reach. While I fear I have not been the ideal PhD student, I could not have asked for a better supervisor. I would also like to thank Dr. Michel Grignon and Dr. Amanda Grenier, who were the first people I met at McMaster to discuss what was then just the idea of doing a PhD. They told me, respectively, that I could expect the process of doctoral studies to be transformational, and that nobody cared about my age. Between them, they convinced me that I was looking in the right direction, and that I hadn't left it too late after all.

It takes a committee to nurture a thesis, and I am deeply grateful to my committee members, Dr. Dunn, Dr. Grignon and Dr. Meredith Vanstone. They have guided me, inspired me, pointed me in the right direction, nudged me back on track, and been incredibly patient and generous with both their wisdom and their time. All three contributed immeasurably and uniquely with their feedback and advice, but Dr. Vanstone stands out as an exemplar for the adage, if you want something done, ask a busy woman. I would also like to acknowledge the financial support I received in the form of an Ontario Trillium Scholarship. I am deeply grateful for this practical support and prestigious award. Thank you also to Dr Claire Kendall, the external examiner, for the detailed and thoughtful feedback, which helped me so much to prepare for the defense, and to Dr Anthea Innes for chairing the defense and calming me down.

There are so many people I would like to thank in Hong Kong, not least the research participants, who will remain anonymous to protect their privacy. There were also many other people who helped me with the Hong Kong research, including Dr. Chan Kin-man, Dr. Wong Hung and Dr. Dennis Ip, when I was at the initial stage of conceptualizing the study. The interviewees came via personal introduction, and I am extremely grateful to Dr. Roger Chung, Dr. Leung Ho-leung, Dr. Arisina Ma and Dr. Samuel Wong who so generously facilitated introductions. Similarly, many people helped me to complete the Toronto interviews, not least the participants themselves and the organization's management, which was very supportive of the research. Special thanks are due to Dr. Laurie Green for facilitating the interviewee-finding process. My thanks to Dr. Gary Bloch extend well beyond his support in completing this part of the thesis. If I hadn't seen his 2013 TEDx talk, *"If you want to help me, prescribe me money"* I doubt I would have even had the initial idea to do a PhD in this area.

So many friends have played a part in supporting me through the past five years, including some I've known my whole adult life, and new friends I have made as a result of doing a PhD. I am grateful to you all, far too numerous to name. Particular thanks are due to Dede Huang and Alec Stewart for hosting me during my stays in Hong Kong to do the fieldwork, and to Solveig Bang for her eagle-eyed proofreading.

I would be nothing and nowhere without my family. The love and support of my siblings—Dave, Sheila, Tony (and somehow, Susan too)—live within me and have sustained me all these years. My children Dylan and Marisa deserve more thanks and gratitude than I can express. They have traveled with me on this journey, seen every up and down with me. You are my pride and joy. Special thanks must also go to Alcuin, for inviting me to imagine, all those years ago, and for all that we made together.

I dedicate this work to my late mother, Lilian Margaret Parry. Every strength I have can be traced back to you, every ounce of my tenacity, resourcefulness and compassion pales in comparison to yours. I hope I have made you proud.

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Figures and Tables

Acronyms

ACO	Accountable Care Organization
AAP	American Academy of Pediatrics
CERB	Canada Emergency Response Benefit
CHC	community health center
CSSA	Comprehensive Social Security Assistance
DHC	District Health Centre
EI	Employment Insurance
FFS	fee for service
GOPD	general outpatient department
HA	Hospital Authority
ICD	International Statistical Classification of Diseases and Related Health Problems
ISHP	Income Security Health Promotion
NSL	National Security Law
MLP	medical–legal partnership
MMCO	Medicaid Managed Care Organization
OHIP	Ontario Health Insurance Plan
RCT	randomized controlled trial
SDOH	social determinants of health
SMHAFHT	St. Michael's Hospital Academic Family Health Team

UK	United Kingdom
US	United States of America
WHO	World Health Organization

Preface

This thesis presents three original scientific contributions as well as separate introduction and conclusion sections.

The first paper, *Primary care-based interventions to address the financial needs of patients experiencing poverty: a scoping review of the literature* has been published in the *International Journal for Equity in Health*, an open access journal. As such, copyright is held by each of the co-authors, i.e., myself, Dr. Meredith Vanstone, Dr. Michel Grignon and Dr James R Dunn. Each has provided written permission to McMaster University to reprint the article as part of this thesis.

All three papers are co-authored and I am the lead author for each. I conceived of each paper in collaboration with my supervisor (Dr. James R Dunn) and my supervisory committee (Dr. Dunn, together with Dr. Grignon and Dr. Vanstone). I completed all literature reviews, data collection and analysis for each paper. I drafted all papers, and each co-author read and provided comments and suggested revisions, which I incorporated.

Introduction

Poverty and health

Health inequities arise from the social determinants of health (SDOH), and improving the conditions of daily life is central to closing the health gap.[1] Both material (absolute) and relative poverty are associated with a wide range of health and social inequities.[2] While there is debate about the causal relationship between poverty and poor health, the associative link is strong.[3] Poverty is acknowledged as the largest single social determinant of health in many high-income countries, including Canada, affecting self-rated health, disease prevalence and life expectancy.[4] [5] [6] [7] Poverty represents an expense to society, including increased health costs.[8] Addressing low income as a SDOH has the potential not only to improve the lives of those affected, but also to reduce the cost to society of health care and social welfare, as well as other associated costs. Because poverty encompasses housing, employment, education and other social factors, much of the work to be done in addressing the SDOH must happen beyond the health sector. However, physicians and other health care workers may have a role to play too, especially in terms of treating their patients within their wider social and economic context.[3] [9]

Poverty interventions in primary care

As part of their daily work, family physicians working in urban areas with high rates of social deprivation encounter patients living in poverty.[10] They see, firsthand, how poverty literally

becomes embodied and can be seen in early childhood experiences, health behaviours, and patterns of disease and death.[11] These effects occur across the life course, compounding and building on each other.[12] [13] When primary care providers talk to their patients about their material circumstances, they also witness how poverty undermines the efforts of both the patients and their health care providers to address disease and disability.[14] As such, family physicians not only have a window onto the effects of poverty on their patients, but also have an incentive to address it.[15]

There are a number of examples of physicians having developed strategies to help them care more effectively for their patients living in poverty. For instance, a study of 35 family physicians in Montreal, Quebec, found that they responded to the context of treating patients living in poverty in three ways: attempting to overcome the social distance between them and their patients; managing their expectations of patients' compliance with treatment recommendations according to their socioeconomic circumstances; and collaborating with other professionals to empower patients.[16] However, according to the study's findings, none of these efforts occurred in a systematic way, nor were they incorporated into the standard operating procedures of their practice. Interventions to directly address the problem of poverty the patient suffers from have been the exception, not the norm. Moreover, issues of SDOH are not deeply embedded in medical curricula, nor is there much education about how to address them in formal training curricula for future family physicians.[17] [18] Despite the global trend towards social accountability in medical education, which calls for a requirement to adapt their curricula to the needs of society, medical students may be exposed to such training informally, but this is dependent on their particular practice including such work in training.[19] Family physicians may not be well-

equipped to understand the health impact of poverty on their patients, or even to recognize the particular struggles of those living in poverty. Medical school students are drawn disproportionately from upper income segments of the population, and as such their own socioeconomic background typically precludes them from having any lived experience of poverty to draw on, and they can be biased and blinded by their own ignorance and prejudice towards socioeconomically disadvantaged patients.[20] [21] In addition to a lack of lived experience, other barriers to responsiveness to patients living in poverty in the primary health care setting have been identified, including lack of data collection on patients' socioeconomic circumstances and a failure to incorporate poverty approaches into standards of care.[22] Interventions such as these require resources, in particular human, in terms of protected time for family physicians engaging in them, and for dedicated staffing.[23]

While addressing poverty in primary care is unusual, there is ample evidence that it can be done effectively, cost-effectively and efficiently. As early as the mid-1990s, some health centers in the United Kingdom (UK) provided welfare rights services to patients, typically run by external agencies to help patients navigate the social welfare system and maximize individual income.[24] [25] More recently, in the UK and also in North America, there have been other initiatives aimed at providing physicians with the data they need to tackle poverty. The *Social Needs Screening Toolkit*, developed by U.S. non-profit organization Health Leads, has been used as an intervention in primary care clinics and hospital emergency rooms to screen patients for unmet social needs, the first step towards intervention.[26] [27] [28] Similarly, in the UK, the Bromley by Bow Centre in London's East End helps clients access non-medical services to improve their health and well-being.[29] In Scotland, the Deep End Advice Worker Project, launched in 2015,

serves two general practices in one of the most socially deprived areas of Glasgow, with financial, social security, housing and debt advice.[30] Given that interventions to address poverty in the primary care setting exist, and are becoming more numerous and widespread, it is an opportune time to better understand them.

About this thesis

Definitions

There are numerous definitions of primary care, but, for the purposes of this thesis, I use Starfield's seminal definition of primary care: the services of a doctor that patients can access directly, without referral, and which are not offered in an emergency setting, and are typically the first point of contact in the health care system, aiming to provide continuous, comprehensive, and coordinated care.[31] I have not used a fixed definition of poverty, but instead have used the definition that the authors of the papers in the scoping review use, and the definition that study participants used for the two qualitative study papers.

Knowledge gaps

This research set out to answer three related questions:

1. How is the primary care sector engaging in work to address the unmet income needs of patients experiencing poverty?
2. What lessons can be learned from one such well-established intervention?

3. What are the barriers and facilitators to engaging in such work in settings with a large population experiencing poverty, but where there are no such interventions?

This thesis sets out to fill three related gaps in our knowledge in three separate and related papers: a scoping review of the literature, complemented by two much more narrowly focused papers that examine the phenomenon from the perspective of health care providers in two very different advanced market economy urban settings: Toronto, Canada, and Hong Kong. In the Toronto study, I investigate an existing and well-established income insecurity intervention. In the Hong Kong study, I examine why no such interventions exist there. While the thesis neither attempts nor intends to directly compare the two settings (Hong Kong and Toronto), the contrast between the two offers valuable insights for such work in urban, high-income country settings. For example, both of these studies to some extent reflect their health system context. The concluding chapter draws out the overall implications and themes of the research. The overarching aim of the research is to add to the body of knowledge in this nascent field. It is also intended to promote awareness of and debate about the role of primary care in addressing the health impact of poverty, especially about the extent to which interventions in one setting are transferable to another, and the role of contextual factors in this process.

A review of primary care-based interventions to address the financial needs of patients experiencing poverty

The first paper examines existing interventions currently in use in high-income countries, such as Canada, the UK and the United States of America (US).[32] This scoping review provides a unique

overview of income interventions across different primary care settings, gleaned from over 200 papers. Unlike previous studies, this study focuses specifically on interventions targeting economic needs, and investigates interventions in the primary care setting across the whole spectrum, from screening patients, and collecting and managing the data generated in the process, to referring patients to external services, and directly intervening to address patients' needs. It maps the tools in use to identify and address patients' economic needs, describes the key types of primary care-based interventions, and examines barriers and facilitators to successful implementation. Compared with previous studies, this review also casts a broader geographical net, rather than concentrating on the US.[33]

Income Security Health Promotion in a Toronto family practice

The second paper presented in this thesis is a case study of the Income Security Health Promotion (ISHP) service, under the Social Determinants of Health (SDOH) Committee of the St. Michael's Hospital Academic Family Health Team (SMHAFHT) in Toronto, Ontario, Canada. The study gathers the perspectives of key informants involved in the SDOH committee within the SMHAFHT to understand the origins, context and functioning of the ISHP service. It explores the external forces and contextual factors that shaped the origin and development of the ISHP program, and explores the desirable skill set for those working in this role and its function within the circle of care. It offers important insights into how to create and sustain such a program in other primary care settings.

Health system context

Canada's health system is governed federally under the Canada Health Act, but the organization and delivery of health services for most people is the responsibility of provincial or territorial governments, with some services managed at the municipal level.[34] Medical training is typically delivered as a self-funded postgraduate program of study followed by a lengthy internship and fellowship process, wherein family medicine is one of the available specialties.[35] In Ontario, most health care services are publicly funded through a single payer, the Ontario Health Insurance Plan (OHIP), and are free of charge at the point of delivery.[36] However, there are significant exclusions, including most residents who do not have permanent resident status or citizenship. OHIP does not cover the cost of some services, such as prescription medications for those aged 26 to 64 and who are not social welfare recipients; dental and eye care; and mental health services. Primary care is the first point of non-emergency contact with the health system, and is provided by family doctors, including solo practices and Family Health Teams, as well as nurse practitioners and walk-in clinics. There is a chronic shortage of family doctors in the province, including in Toronto.[37] Family Health Teams, such as the one in the case study, are funded through a blend of capitation and fee-for-service, which influences their ability to offer services that cannot be charged to OHIP under a specific billing code, such as non-clinical interventions to address patients' unmet income needs.[38]

Poverty, health, and a Toronto family practice

Calls by the Ontario Physicians Poverty Working Group for family physicians to make efforts to identify poverty in their practices and communities preceded the 2010 launch of the screening tool *Poverty: A clinical tool for primary care providers*.[39] [40] The tool was developed by a family

physician, in collaboration with St. Michael's Hospital Centre for Effective Practice, and the Ontario College of Family Physicians.[41] [42] [43] The tool calls on physicians to screen every patient by asking the question "Do you ever have difficulty making ends meet at the end of the month?" and then to consider poverty as a risk factor for disease, and subsequently to intervene, by asking whether the patient has completed a tax return (required to access many social benefits), and connecting patients with support to access benefits and services. Following on from this, the SMHAFHT launched the in-house ISHP service, to which team members including physicians can refer patients for support on a range of finance issues, including welfare benefits claims, referrals to organizations that offer free or discounted products and services, informal credit counselling and personal budgeting information.[44]

Understanding why this service has emerged in this setting, how it operates, and where it fits in the circle of care in the context of team-based family medicine, can offer helpful insights for other organizations looking to set up a similar intervention.

Barriers to addressing poverty in the primary care setting: the case of Hong Kong

While poverty interventions in primary care appear to be gaining traction in some settings, in others there has been little evidence of interest in addressing poverty and its health impact within the context of primary care. Why this is so is an interesting question worthy of examination.

The third paper, *Physicians' perspectives on responsiveness to poverty in publicly funded primary care in Hong Kong*, looks at an environment with extremely high rates of poverty, but where there are no such interventions in place. Through interviews with family physicians

working in settings where they encounter many patients experiencing poverty, the study explores the multiple barriers to primary care responsiveness to poverty, and what physicians try to do anyway to help with the patients' unmet economic needs. By identifying the barriers, facilitators and avenues for change, the paper offers pointers for the introduction of such interventions not only in Hong Kong, but also in other high-income settings with high levels of inequality.

Social context of Hong Kong

Hong Kong has one of the highest life expectancy rates and lowest infant and maternal mortality rates in the developed world, with contributory factors such as an enabling environment, cultural factors such as diet and familial ties, and universally accessible hospital care.[45] [46] However, these statistics belie the health impact of poverty. Hong Kong is one of the richest economies in the world in terms of per capita gross domestic product (2016 per capita GDP: $42,963). [47] At the same time, of Hong Kong's 7.35 million residents, 1.35 million (or 18%) were living below the poverty line in 2016, defined by the Hong Kong Government as living on less than 50% of the median income.[48] For those aged 65 and over, the proportion is one in three.[49] Hong Kong has one of the widest income disparities in the world, although it is similar to other cities, such as Singapore, and comparable US cities such as New York and Los Angeles. [50] [51]

Health system context

Hong Kong's health system is dual track, with both publicly funded and private sectors. The private sector accounts for 70% of primary care attendance, but the Hospital Authority (HA)—a statutory body under the governance of the Food and Health Bureau, which operates all 43 of the

city's government-owned hospitals and institutions—also runs a range of publicly funded outpatient services, including 73 general outpatient department (GOPD) clinics.

Although there is universal health coverage in Hong Kong, health care utilization, particularly at the primary care level, which is dominated by private fee-for-service practitioners, is also skewed according to socioeconomic status.[52] [53] Most primary care is provided predominantly by private, for-profit individual and group practices, as well as via traditional Chinese medicine practitioners, and direct self-medication via retail pharmacies. For all of these services, patients pay out of pocket, or are fully or partially covered by employer-provided and self-funded private health insurance. The remaining 30% of primary care is provided by the public sector, through outpatient clinics run by the Department of Health or the HA, and via hospital accident and emergency departments, particularly outside office hours. The outpatient clinics charge a HK$50 (US$6.40) fee per visit, and the charge is HK$180 (US$23.10) for accident and emergency departments, but is waived for Comprehensive Social Security Assistance recipients and some categories of older adults.[54] [55]

In the last decade, there have been numerous attempts to shift the burden of primary health care even further from the public to the private sector.[56] [57] [58] However, the HA's GOPD clinics still provide the bulk of primary care for patients who do not directly access the private sector. In 2019, HA GOPD clinics handled over 6 million patient visits, versus under 500,000 for general outpatient clinics run by the Department of Health.[59]

Although there has not been much academic research to date on the health impact of poverty in Hong Kong, there have been studies on both physical and mental health among elderly Hong Kong residents, which have found, for example, evidence of an increased risk of diabetes, and poorer mental health.[60] [61] Family physicians in Hong Kong operate against this backdrop of government policy and within a distinctive social welfare and health system. This background is well understood, but little is known about doctors' own knowledge, attitudes and behaviour with regard to poverty and its health impact. This study is a first attempt to address this gap.

Motivation and background

The McMaster University Department of Health, Aging and Society Ph.D. in Health & Society embraces the social, cultural, political and environmental aspects of health. As such, it has been the ideal home for me to continue my study and learning, to engage in doctoral-level research, in an area that has been of almost lifelong interest to me: why poor people have worse health and shorter lives, and what can be done about it.

The decision to conduct research into how cities in advanced market economies can address the health impact of poverty arose from two sources. Firstly, the health impact of social deprivation is part of my lived experience. I grew up in Liverpool, UK, on a public housing estate, where I experienced first hand the health and social impact of economic inequities, in my community, and in my own family. Secondly, prior to moving to Canada for study, I lived in Hong Kong for 28 years, working in a variety of journalistic and development communications roles. These took me into almost every country in Asia-Pacific, where I observed health equity issues in a wide variety of settings, but Hong Kong is the place I call home, and my strong interest has been how

to bring to light the health impact of poverty there. Speaking Cantonese has enabled me to integrate into the community in Hong Kong and witness close-up the extreme health inequalities of this society.

Of all the theories around why people experiencing poverty have worse health and shorter lives, the least convincing to me was that it was largely a factor of individual choices. I have seen first-hand how poverty restricts and distorts people's choices, and often places people experiencing poverty in predicaments from which they are not empowered to extricate themselves. I wanted to examine the societal and political factors that surround poverty and health, and I also believe that individual stories and voices have a significant role in shaping public policy for social change. Qualitative research, whereby words are data, has unique power to explain the how and why of a social phenomenon and shape the process of change. I bring to this research process a proven ability to interview people, and to put them at ease so they are willing to open up and talk, even to someone they do not know. This is a vital skill for qualitative research based on open-ended interviews, as was the case for two of the three research components of this thesis. The academic training I received under the PhD program in critical thinking, and quantitative and qualitative research methods, and the opportunity to read widely, built on both my professional background as a public health writer, and my academic background of a Masters of Public Health.

One of the key qualitative research skills I learned in the course of this study was to understand the importance of reflexivity. In the process of designing the Hong Kong and Toronto studies, I had to be continuously mindful of the risk of bias and preconceived notions, for example, and I was careful to observe my thoughts and feelings after conducting the interviews. This helped me

to approach the data analysis with a more inquiring mind, rather than subconsciously looking for insights and comments that could reinforce my pre-existing ideas on the topic.

A note on an authoritarian crackdown and a global pandemic

The research in both places took place against two different backdrops of dramatic social upheaval. I conducted my fieldwork in Hong Kong during two visits, one in August 2019 and a second in January 2020. In the summer of 2019, the city was experiencing mass peaceful protests and later violently suppressed civil unrest that lasted until the March 2020, when the COVID-19 outbreak brought an end to public gatherings. There has since been a rapid and society-wide dismantling of the institutions that made Hong Kong unique as a special administrative region of China: press freedom, a thriving civil society ecosystem, an independent judiciary, an elected political opposition, and a general atmosphere of freedom of thought, vigorous public debate, and the free exchange and expression of opinions and ideas. One of my motivations for the Hong Kong study was to stimulate a conversation within the physician profession about its role in addressing poverty in Hong Kong. The blanket of fear that the National Security Law (NSL), passed in July 2020, laid over the city makes such public debate seem highly unlikely for the time being. It is impossible to discuss the topic of poverty and health without casting a critical eye over government policy, which can be deemed to be in contravention of the vaguely worded NSL. I would have liked to continue the conversations with the doctors I interviewed, but post-NSL, this was clearly not a time to broach sensitive topics, such as the structural failings of the city's health and social welfare system. When writing up the study findings, I had to exercise an additional layer of caution to ensure that nothing I wrote could be construed as in contravention of the NSL, to protect both my sources and myself.

Meanwhile, in Canada, as I was preparing to interview family physicians and other members of staff in a busy downtown Toronto family health team, the COVID-19 pandemic began. This effectively made it impossible to conduct the interviews face-to-face, and, for long periods of 2020 and 2021, the potential interviewees were grappling with multiple waves of the pandemic, and it was not an appropriate time to request interviews for this project. A window of opportunity opened in a lull between outbreak waves in the summer of 2021, and I was able to complete the interviews by Zoom videoconferencing. This was not ideal; everyone was exhausted by the pandemic, including myself. Nevertheless, the interviewees were supportive of the study and generous with their time, and, the COVID-19 pandemic, which had thrust so many people into financial distress, underscored the importance of the ISHP work I was investigating.

Over-arching epistemology and study design

My research was influenced and inspired by a critical realist ontology, because I was particularly interested in understanding the contextual factors that affect the phenomena I was studying. Rather than asking: "What works?," the over-arching question guiding my research was "What works for whom and in what circumstances?"[62] My epistemological standpoint draws on the work of philosopher Ram Roy Bhaskar, who conceptualized reality as stratified into three primary layers: real (the underlying structures responsible for what we can observe but which we have no direct knowledge of); the actual (events which are caused by mechanisms in the real); and the empirical (observable experience).[63] Bhaskar's philosophy of science underpins the concept of causal powers, which Sayer explains as follows: "objects and social relations have causal powers which may or may not produce regularities, and which may be explained

independently of them."[64] This theory of causal powers is particularly helpful in answering my research question because it offers an alternative to the "absurdly restrictive," as Sayer puts it, positivist methodology, and the interpretivism that is often placed in diametrical opposition to positivism.

The critical realist approach requires me to consciously separate facts and factual statements made about those facts. It also provides the framework for me to do so, and to keep in the forefront of my mind when examining the programs and interventions under study, that meaning is context dependent. I drew on Pawson and Tilley's work using the framework of: Mechanism + context = outcome.[65]

My epistemological assumptions were contextualist because I sought to tease out the human context of the use of an objective tool, whereby "knowledge emerges from contexts" and "reflects the researcher's position."[66] This was particularly relevant in relation to the interviews, to remind me that I could only ever partially know how interviewees really thought and felt about the subject I was investigating because their communication of that may have been filtered by their interactions with me, based on, for example, what they wanted me to hear, what they thought I wanted to hear, or other reasons unknown to me that shaped what they said in the context of a face-to-face interview with someone who was an outsider to their organization. Moreover, I endeavored to not take their answers at face value as a statement of fact, but rather as an expression of opinion informed by a range of factors, including the organizational culture within which they were working, their own lived experience, and their own prejudices and

personal feelings. As such, in my questioning, I tried to probe the underlying and not the immediately observable factors that may have influenced their answers.

Methodologies used

The scoping review study design was selected because it is well suited to synthesizing a vast, heterogeneous body of literature.[67] Scoping reviews can reveal the "lay of the land."[68] Such a study enables a timely snapshot, but by its nature cannot be a living document, and the field of research is moving so swiftly that another scoping review may be necessary in the near future. The scoping review methodology may not have the evaluative element of a systematic review, but this would not have been a practical approach with over 200 papers studied, and it does not detract from its value as an eagle's eye view of a broad field.

In deciding on a suitable research methodology for the two interview-based studies, I found that neither fit into a particularly neat category. Looking at Creswell and Poth's writing on research design, for example, I could see elements of both case study and ethnography in my study design, but neither was a particularly good fit overall.[69] For the Toronto study, I selected a qualitative descriptive design because I intended to discover and understand a phenomenon from the perspective of those involved and was not offering evidence for an existing theoretical construction.[70] I also valued the flexibility that this method allowed, to adapt to the real-world context and use naturalistic study methods. For the Hong Kong study, I used interpretive description, a research methodology appropriate for this investigation because of its emphasis on the "discovery of recurrent patterns or shared realities" within the complex, constructed and contextual nature of human experience.[71]

The questions I asked in this research could be answered in many ways, using a wide range of research methodologies. A randomized controlled trial of the ISHP is currently underway, for example.[72] I see my qualitative research as complementary to other studies of the same service. Studies such as mine enable an exploration of the motivations, attitudes and opinions of the people involved, rather than the structure and functioning of the system in which they are working. The scope of the research is necessarily limited, bound as it is by the time and funding constraints I was working under. In both the Hong Kong and Toronto studies, methodologies that would allow for more in-depth relationship building and observation (such as ethnographic study) or which would enable the inclusion of quantitative data, for example on patient outcomes, in a mixed methods study, would be an interesting continuation of the themes I explore in this thesis.

Contribution to the field

What this thesis adds to the literature is threefold: i) a unique overview of income interventions across different primary care settings in different countries, across the whole spectrum, from screening patients, and collecting and managing the data generated in the process, to referring patients to external services, and directly intervening to address patients' needs; ii) a case study of a well-established, active intervention–examined from the point of view of those who created it, refer patients to it and implement it–which can help explain why it works and examines what others might learn from their experience; and iii) a study that, for the first time, elicits the perspectives of key informants working in publicly funded primary care in Hong Kong on why poverty is not addressed through the primary care setting; what they consider to be their role in

responding to poverty; and how they perceive the political, structural and cultural enablers, as well as the barriers to addressing it. Taken together, these three studies further the field of knowledge in using primary care as a setting to address the health impact of poverty.

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Paper 1. Primary care-based interventions to address the financial needs of patients experiencing poverty: a scoping review of the literature

Preface

This paper lays the foundation for the thesis, in the form of a scoping review of the literature on primary care-based interventions to address the financial needs of patients experiencing poverty. Taking a broad lens, it examines existing interventions currently in use in high-income countries. Thus, it provides a unique overview of income interventions across different primary care settings. Unlike previous studies, this study focuses specifically on interventions targeting economic needs, and investigates interventions in primary care settings across the whole spectrum, from screening patients, and collecting and managing the data generated in the process, to referring patients to external services, and directly intervening to address patients' needs.

The suggestion to use the scoping review format for this paper came from Dr. Vanstone. I conceived the parameters of the review, and, in August 2020, conducted all the literature searches and data analysis. I wrote a preliminary version of the study in late 2020, after which I received a significant amount of feedback and comment from my thesis committee members (Drs. Dunn, Grignon and Vanstone) on how to improve, refine and condense the study. After several rounds of review, final revisions from all committee members were incorporated into this final version. The paper was accepted for publication in the *International Journal for Equity in Health* and was published on October 7, 2021.

Full citation: Parry J, Vanstone M, Grignon M, Dunn JR. Primary care-based interventions to address the financial needs of patients experiencing poverty: a scoping review of the literature. *International Journal for Equity in Health*. 2021 Oct 7;20(1):219. doi: 10.1186/s12939-021-01546-8. PMID: 34620188; PMCID: PMC8496150.

Primary care-based interventions to address the financial needs of patients experiencing poverty: a scoping review of the literature

Abstract

It is broadly accepted that poverty is associated with poor health, and the health impact of poverty has been explored in numerous high-income country settings. There is a large and growing body of evidence of the role that primary care practitioners can play in identifying poverty as a health determinant, and in interventions to address it. In order to identify key concepts and gaps in the research, this study maps the published peer-reviewed and grey literature on primary care setting interventions to address poverty in high-income countries. This scoping review seeks to map the tools in use to identify and address patients' economic needs; describe the key types of primary care-based interventions; and examine barriers and facilitators to successful implementation. Using a scoping review methodology, we searched five databases, grey literature, and the reference lists of relevant studies to identify studies on interventions to address the economic needs-related social determinants of health that occur in primary health care delivery settings in high-income countries. Findings were synthesized narratively and examined using thematic analysis, according to iteratively identified themes. Two hundred and fourteen papers were included in the review and fell into two broad categories of description and evaluation: screening tools and economic needs-specific interventions. Primary care-based interventions that aim to address patients' financial needs operate at all levels, from passive sociodemographic data collection upon patient registration, through referral to external services, to direct intervention in addressing patients' income needs. Tools and processes to identify and address patients' economic social needs range from those tailored to individual health practices,

or addressing one specific dimension of need, to wide-ranging protocols. Measuring success has proven challenging. The decision to undertake this work requires courage on the part of health care providers because it can be difficult, time-consuming and complex. However, it is often appreciated by patients, even when the scope of action available to health care providers is quite narrow.

Background

The social determinants of health (SDOH) are defined by the World Health Organization (WHO) as the "conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life," and it is broadly accepted that poverty is associated with poor health.[1 2] The influence of money on health can be examined according to multiple theories, including material mechanisms, psychosocial and behavioral pathways, and the impact of disability on income, and can be conceptualized as a combination of more than one pathway.[3-9] The health impact of poverty has been explored in numerous high-income country settings. In Canada, for example, while social policies, notably universal health insurance, attenuate the negative relationship between low income and health, those in the lowest income quintile have higher rates of chronic disease and disability, and there is some evidence that income interventions may improve health at a population level.[2 10-14] However, whether or not health care providers and the health care system can—or even should—play a part in addressing them remains contested.[15-17]

Nested within the larger societal conversation about the social determinants of individual and population health, there is an ongoing discussion happening in both the public and academic

arenas about the role of primary care in addressing them.[18-21] Primary care—i.e., the services of a doctor that patients can access directly, without referral, and which are not offered in an emergency setting—is typically the first point of contact in the health care system, aiming to provide continuous, comprehensive and coordinated care.[22] Primary care is delivered in different health care settings, and can even be in non-health sector settings, such as schools.[23 24] The primary care concept, according to WHO, is "a whole-of-society approach to health and well-being centered on the needs and preferences of individuals, families and communities. It addresses the broader determinants of health and focuses on the comprehensive and interrelated aspects of physical, mental and social health."[25] As such, there is a strong argument that poverty, as a SDOH, is well within the remit of primary care. Indeed, in the health care sector, primary care in particular has been a setting for interventions to address poverty.[26-30]

Primary care involvement in addressing SDOH varies in both depth and scope. In terms of depth, it can be in the form of screening, with or without subsequent referral to services to address identified needs. It can extend to interventions within the primary care setting itself, beyond signposting for external supports. Social prescribing is one commonly used term for such interventions, but there is no universally accepted definition of this term, or consensus on what it encompasses.[31] While this study includes articles on social prescribing, it specifically examines interventions that aim to directly improve the client's economic circumstances. In terms of scope, such interventions can focus on a particular SDOH domain, such as housing,[32] income,[33] or education,[34] or it can be broad-ranging, covering multiple SDOH and even incorporating behavioral and psychosocial aspects of individual health.[35 36]

There are sceptics on the role of health care providers in addressing the economic needs of patients living in poverty, including those who argue that social justice is beyond the scope of medical practice.[37] There are also concerns that those who are most in need of healthcare services are the least likely to have access to them.[38] As such, interventions to address poverty could widen inequities, not narrow them.[39] Another concern is that, in the process of screening for social needs, health care providers will be faced with problems that they do not have the resources to address, or will create unfulfilled expectations among patients, and may also take up time that could otherwise be spent on clinical care.[40 41] Addressing economic needs in primary care may also distract from inadequacies in the social safety net that bring those needs into the doctor's clinic in the first place.[42] There is also evidence to suggest that even if patients disclose non-medical needs to their primary care provider, they may not want clinicians' help to address those needs.[43]

These criticisms notwithstanding, there is a large and growing body of evidence to demonstrate that individual medical practitioners encounter the embodiment of poverty in their patients, and see addressing patients' socioeconomic needs as part of their remit as health care providers, and that some health care organizations are choosing to address them.[32 44-48] While there is a plethora of literature on various aspects of primary care-based interventions to address poverty, what is missing is an understanding of the overarching themes that can be gleaned from this vast body of literature, such as the scope, target users and format of screening tools, and the types of interventions and what they specifically aim to address. Investigating this can also highlight areas in which the field would benefit from more research.

Objectives

The purpose of this study is to map the tools in use to identify and address patients' economic needs; describe the key types of primary care-based interventions; and examine barriers and facilitators to successful implementation. There are many different ways to screen for and intervene in patients' economic needs, and the inclusion criteria were deliberately constructed to capture the heterogeneity of such screening tools and interventions. Unlike previous studies, this study focuses specifically on interventions targeting economic needs, and investigates interventions in the primary care setting across the whole spectrum, from screening patients, and collecting and managing the data generated in the process, to referring patients to external services, and directly intervening to address patients' needs. In the process of examining the literature, this scoping review seeks to map the published peer-reviewed and grey literature on primary care setting interventions to address poverty in high-income countries, in order to identify key concepts and gaps in the research. Its breadth of scope differentiates it from previous systematic reviews and scoping reviews, which have looked specifically at, for example, the impact of social needs interventions on health outcomes and spending,[21] screening tools,[49-51] social prescribing and system navigation,[52-54] or which have examined SDOH more broadly.[55] This review will be global in scope, rather than concentrated on the US, as is the case in other studies.[56]

Methods

The scoping review study design was selected because it is the one that is well suited to a topic for which the literature is vast, complex and heterogeneous, including theoretical and narrative reviews; quantitative, qualitative and mixed-methods studies; and peer-reviewed and grey literature.[57] [58] The aim is to map key concepts and clarify working definitions rather than to address a precise question, such as measurable outcomes from a particular type of intervention.[59] Scoping reviews are useful for revealing the "lay of the land."[60] There is no universally accepted definition of what constitutes a scoping review; although there are no highly rigid structures for conducting one, a scoping review must still be systematic, reproducible and accountable.[61]

This scoping review uses the six-step Arksey and O'Malley framework for conducting scoping reviews: identify the research question, identify the relevant studies, select the studies for review, chart the data, and then collate, summarize and report the findings.[62] It follows Tricco et al.'s Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews checklist.[63]

Search strategy

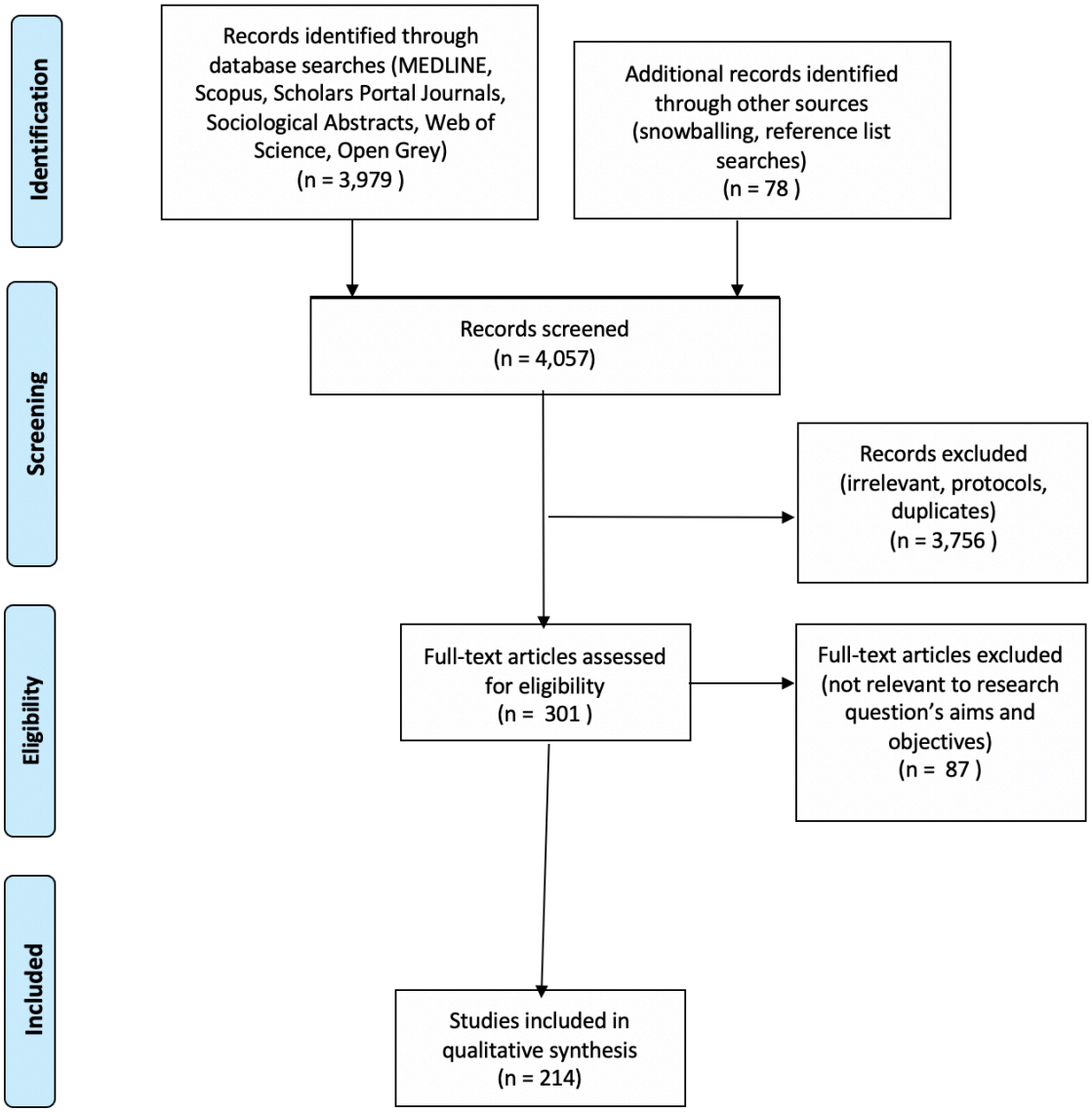
Selecting the literature

For scoping reviews, the challenge is how to strike a balance between the breadth and comprehensiveness of the available literature versus the resources available to conduct the study.[58] This is overcome by placing limitations on the scope of the searches, guided by the research questions and an initial review of the literature, in an iterative fashion.[60] For this scoping review, search inclusion criteria were English-language peer-reviewed and grey

literature published from January 1, 2000, to the date of the search (between August 7 and 21, 2020, with the last search conducted on August 21, 2020). For inclusion, a screening, referral or intervention paper had to include at least one of the following terms in the title or abstract: 'SDOH, income, employment, food security/insecurity, housing/homelessness, legal services, education, and transport', and be related to the clinical health care services delivery system. Programs had to be delivered within the primary care clinical setting, either by a health care professional, dedicated staff member or volunteer. The inclusion criteria thus targeted the search to health care setting interventions, rather than community-level interventions, or those in other settings, such as welfare rights centers or schools. Studies were excluded if they did not meet these criteria, and if they were not related to economic security needs screening, referral or intervention. By searching the literature using the key words 'primary care,' 'family practice' and/or 'health centre/center,' it was possible to include primary care settings, which in one context would count as primary care (e.g., pediatricians in the US), but in another would not, and include settings such as community health centers (CHCs) (which exist in Canada and the US, but do not exist in the same form in the UK, for example).

Key word searches were conducted on MEDLINE, Web of Science citation indexes for science and social science, Scopus, Scholars Portal Journals, Sociological Abstracts databases, as well as grey literature searches on Open Grey, and a search of citations in key studies. The University of California, San Francisco Social Interventions Research & Evaluation Network (SIREN) resources database was also searched. The search strategy is available in the Appendix.

Figure 1. PRISMA flow diagram



After initial screening, full papers were reviewed and screened by one author (JP) against the inclusion criteria to determine eligibility. As this is a scoping study, not a systematic review, there was limited assessment of methodological quality. Initially, all types of peer-reviewed papers were included, including qualitative, quantitative and mixed-methods studies of interventions, clinical decision-making tools, systematic and scoping reviews, and commentaries

and opinion pieces. Study protocols were excluded. Any new and potentially relevant sources identified from citation lists were added. Upon review of the full text, those that were deemed outside the scope of the study were removed.

Analysis

Each study abstract was scanned first to identify the main themes. This was an iterative process that required going back and forth to capture multiple themes across papers. Once these initial themes were identified, they were grouped into the following categories: literature reviews and systematic reviews, screening tools, economic needs-specific interventions, and service facilitators and barriers. Working through each category, the papers were analyzed to find points of commonality and divergence, and to identify any new emerging themes. We adopted qualitative content analysis to explore emerging themes, collapsing and expanding them over the course of the analysis process, until logical and clear themes and sub-themes emerged. This subjective interpretation of content using a key word coding system worked well to wrangle such a large body of literature into a workable volume of analysis to understand the phenomena under study.[64 65]

Results

In total, the searches yielded 3,979 results, and the titles and abstracts were initially screened for relevance. Duplicates were removed, and the remaining 214 were included in the review (Table 1).

Table 1: Study characteristics

Study characteristics (n=214)	Count
Year of publication	
2000-2004	7
2005-2009	15
2010-2015	27
2016	19
2017	19
2018	35
2019	50
2020	28
None specified	14
Country	
USA	147
UK	39
Canada	23
Other/none	5
Type of paper	
Program or intervention evaluation	97
Review, descriptive	56
Opinion/commentary	16
Guidance	9
Theory	3
Non-peer review knowledge products and web pages	33
Screening or intervention	
Screening	121
Intervention	81
Both	8
Neither	4
Specific themes	
Medical-legal partnership	15
Income, employment and welfare rights	19
Food insecurity	29
Service users	62
Service providers	51
‘System navigator’	33

The following section will present the themes identified in the analysis. ‘Unmet financial needs’ was determined by the inability to access the necessities of life, in particular adequate, secure housing and a stable supply of food. ‘Financial need’ was expanded to include other needs which are a direct result of inadequate finances, including stable housing and food security. It was common for papers to straddle two or more themes, for example, for one paper to include a screening tool description and service user perspectives, and to focus on food insecurity.

Analysis of this literature identified that although social needs interventions have existed for at least two decades in various forms, they have grown rapidly, as the vast bulk of the literature had been published in the last five years, indicating that social needs interventions are proliferating in line with a broader trend toward integrated behavioral healthcare, notably in the US and UK.[35 45 66 67] Studies of interventions use a broad range of outcome measures, including those related to process, health impact, costs, and service user and provider perceptions. They also use a variety of terminology to describe such interventions, such as ‘social prescribing’,[68] ‘clinical-community linkages’,[69] and ‘social referral’.[70] The results are presented under three headings, each of which describes a different aspect of the process of financial needs intervention in primary care settings. ‘Screening tools’ and ‘screening tool evaluations’ covers the process of identifying patients with unmet financial need, and includes the tools themselves as well as analyses of their use and utility. ‘Economic needs-specific interventions’ refers to interventions that occur in the primary setting, either to directly provide services or to refer patients to other service providers, and they are grouped under sub-categories for medical–legal partnerships; work, employment and welfare rights; food insecurity; and housing. Finally, the section on service users and service

providers explores their respective perceptions of both facilitators and barriers to such interventions in the primary care setting.

Screening tools and screening tool evaluations

Social and economic needs screening tools for use in primary care have proliferated in the past two decades.[49] Screening alone cannot address unmet social and economic needs, but it is key to understanding the patient in both social and medical dimensions.[71] Screening tools can range from a single question[72 73] to multi-dimensional, detailed questionnaires.[74 75]

Screening toolkits have been designed for multiple delivery modes. They can be completed by the patient themselves or in concert with a clinical or non-clinical staff member before or during the encounter.[76] There are paper-based and digital formats for many screening tools (Figure 3). There are proprietary tools designed by the primary care practices that use them, and ready-made tools from national organizations or externally sourced from other organizations such as community legal practices. With a large number of tools available, it can be feasible to adapt existing tools to local need, rather than reinventing the wheel, and customization is the norm.[26 77 78]

Figure 2. Social and economic needs screening tools

Name	Format	Source	Citation
Centers for Medicare & Medicaid Services Accountable Health Communities Screening Tool	8-page questionnaire with sections on living situation, food, transport, utilities, safety, financial strain, employment, family and community support, physical activity, substance use, mental health and disabilities	Centers for Medicare & Medicaid Services https://innovation.cms.gov/files/worksheets/ahcm-screeningtool.pdf	Billioux A, et al., 2017[79]
CLEAR	4-page, 4-step guide for front-line health workers Step 1: Treat Step 2: Ask (with suggested questions on, e.g., employment, food and housing) Step 3: Refer (with suggested referral pathways) Step 4: Advocate (with suggestions for influencing community-level change)	CLEAR Collaboration, McGill University https://www.mcgill.ca/clear/files/clear/clear_toolkit_2015_-_english_1.pdf	Naz A, et al., 2016[80]
Health Begins Upstream Risk Screening Tool	4-page questionnaire with sections on education, employment, social connection and isolation, physical activity, immigration, overall financial strain, housing insecurity, food insecurity, diet, transportation, and exposure to violence and stress, with different questions for first visit and annual follow-up	https://www.aamc.org/system/files/c/2/442878-chahandout1.pdf	Bleacher H, et al., 2019[77]
Health Leads Social Needs Screening Toolkit	21-page guide to creating a screening toolkit with suggested domains and questions, tips and a sample 1-page screening	Health Leads https://healthleadsusa.org/resources/the-health-leads-screening-toolkit/	Health Leads[74]

	questionnaire in English and Spanish		
Medical–Legal Partnership Screening Guide	6-page screening guide template with sections on income, housing and utilities, education and employment, legal status, and personal and family stability	National Center for Medical–Legal Partnership https://medical-legalpartnership.org/screening-tool/	National Center for Medical–Legal Partnership[81]
Patient-Centered Assessment Method	2-page questionnaire for health care provider to document assessment of patient's health and well-being, social environment, health literacy, and required support	National Health Service https://njl-admin.nihr.ac.uk/document/download/2012029	Maxwell M, et al, 2018[82]
Poverty: A Clinical Tool for Primary Care Providers	2-page document with three steps: Step 1: Screen everyone with the question: Do you have difficulty making ends meet at the end of the month? Step 2: Consider poverty as a disease risk factor Step 3: Intervene to ask every patient if they have filled out their tax forms (required for benefits access) and suggested questions for specific at-risk groups	Centre for Effective Practice https://portal.cfpc.ca/resourcesdocs/uploadedFiles/CPD/Poverty_flow-Tool-Final-2016v4-Ontario.pdf	Centre for Effective Practice, 2016[83]
Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences (PRAPARE)	2-page questionnaire with sections on family and home, money and resources, and social and emotional health	National Association of Community Health Centers https://www.aapcho.org/projects/prapare/	National Association of Community Health Centers, 2016[75]
Total Health Assessment Questionnaire	4-page questionnaire with sections on physical and mental health, living situation and education	Kaiser Permanente https://sirenetwork.ucsf.edu/tools-resources/mmi/total-	Kaiser Permanente, 2017[84]

for Medicare Members		health-assessment-questionnaire-medicare-members	
Well Child Evaluation Community Resources (WE CARE)	2-page, 10-question questionnaire on education, employment, alcohol and drug use, safety, and food and housing insecurity	Garg A, et al., Johns Hopkins University School of Medicine, Baltimore, MD	Garg A, et al., 2007[85]
WellRx Questionnaire	0.5 page questionnaire with 11 questions on unmet material needs, requested help for specific needs (e.g., finding employment, accessing education) and safety	Page-Reeves J, et al., University of Albuquerque, NM	Pages-Reeves J, et al., 2016[86]
Your Current Life Situation	2-5-page questionnaire with sections on current living situation (e.g., housing and food insecurity) and health behaviors (e.g., alcohol and drug use)	Kaiser Permanente https://sirenetwork.ucsf.edu/tools-resources/mmi/kaiser-permanentes-your-current-life-situation-survey	Sundar KR, 2018[87]

Among the evaluations and critiques of social needs screening tools, Gottlieb et al.'s 2014 randomized controlled trial (RCT) was the first to show that in-person navigation for social needs is associated with families reporting decreased social needs, and significantly improved caregiver-reported child health.[88] However, the accuracy of screening tools to assess social needs is largely unevaluated,[89] with WE CARE and Kaiser Permanente's Your Current Life Situation notable exceptions.[87 90]

Complexity is not necessarily an advantage, particularly if the tool is designed for implementation by the health care provider during a patient encounter.[79] In a pilot study of a one-

question poverty screening tool, the question "Do you ever have difficulty making ends meet at the end of the month" had 98% specificity and 68% sensitivity in predicting a patient's poverty.[91] Similarly, patients in a Virginia general internal medicine and emergency department completed a 60-second survey to identify their unmet social needs, and the survey was effective in identifying the three most pressing unmet needs of the community the hospital served.[92]

In the studies focusing on food insecurity, there was a definite tilt away from in-person screening, but, for broader social needs screenings, the findings from the literature were more mixed. How information is elicited can affect the screening outcome. On the one hand, unstructured data collection can help reveal patients' more complex needs. On the other, bias and stigmatizing during selection of patients for screening may reduce the tool's efficacy for detection of unmet social needs.[93-95] Other studies have demonstrated the acceptability of screening tools to patients.[82 96] These are explored below under service user perceptions.

Economic needs-specific interventions

Medical–legal partnerships

Medical–legal partnerships (MLPs) are a response to the clear association between health and socioeconomic risks that are amenable to legal interventions.[97] Through a collaborative intervention, they typically embed civil legal aid professionals in the clinical setting.[98] Clients' common presenting issues include problems with housing (including energy security), and income.[97 99 100] In the selected literature, almost all of the medical–legal partnerships were in the US. Outside of the US, similar partnerships have been established in Canada.[101 102] Given their mandate to provide primary care services in underserved areas, it is no surprise that CHCs are a

natural home for health justice interventions and are where the number of medical–legal partnership services is growing the fastest.[103-105] Such services have a proven track record of helping clients obtain access to external food and income supports, claim unpaid welfare benefits, and prevent shut-offs of utilities.[97 100 106]

Income, employment and welfare rights

Food insecurity, insecure and substandard housing and poverty-related legal issues are the expression of a more fundamental problem of income inadequacy. With that in mind, income is not as common a screening question as might be expected.[107] However, income issues are seen by welfare rights service providers as a good fit for their skill set and are often flagged as a presenting issue.[97 106 108-110]

Studies of welfare rights services in primary care in the UK in the early 2000s reported increases in income for service users, as well as better self-reported mental and emotional health (although with only modest health improvements).[32 111-117] However, there is little evidence to date on the health impact of such interventions.[118 119] At the forefront of this work in Canada is the Social Determinants of Health Committee of the St Michael's Hospital Academic Family Health Team, which, since 2013, has introduced numerous anti-poverty interventions, including sociodemographic screening and data collection, an income security health promotion service, medical–legal partnership, decent work initiative and child literacy program. Since 2013, the hospital's Income Security Health Promotion service has assisted clients to improve their income and reduce expenses, but the papers reviewed did not reveal any evidence of measurable health impacts.[120-123] Similar to their US counterparts, Canadian CHCs have a built-in mandate to

address the upstream determinants of health.[124] A recent social prescribing pilot run across 11 CHCs in Ontario, which included financial needs interventions, to some extent formalized what CHCs are already doing in their respective communities.[125-127]

In the UK, within its broad mandate of social prescribing (whereby the direction that the service takes is tailored to the needs identified by the client), the Bromley by Bow Centre model includes welfare rights and employment support.[128] In 2016, the social prescribing service offered by Bromley by Bow Centre was rolled out across the London Borough of Tower Hamlets via 37 general practitioner practices.[129] In Scotland, The Deep End Advice Worker Project—one of a collection of Deep End Project activities of General Practitioners at the Deep End serving the 100 most deprived communities in Scotland—brings advice services to two of the most socially deprived areas of Glasgow.[130 131] It is noteworthy that the model is one of assimilation, to embed an advice worker into the primary care practice, rather than co-locate services. Embedding an advice worker into the care team enables the service to increase its reach and benefit from the established relationship of trust between patient and doctor, and between the advice worker and the primary care physicians.[132 133] As for employment, income interventions targeting employment are scarce and mainly focused on patients with mental illness.[134]

Food insecurity

Food insecurity has been associated with adverse health outcomes.[135 136] Leonard et al.'s examination of overlapping clusters of food insecurity and poor health are suggestive of "shared causal mechanisms," and the American Academy of Pediatrics (AAP) recommends screening for food insecurity.[137-139] Notably, food insecurity was one of the most common topics in the

literature under review, with numerous dedicated screening tools, as well as frequent inclusion in wider screenings, indicating that it may be seen as particularly amenable to intervention in the primary care setting.[72 138 140-144] It can present both challenges and opportunities for providers, including administration issues, and a practice champion or advocate may be helpful in overcoming these challenges.[145-147] Although food insecurity screening may present an opportunity for further exploration of a patient's social needs when asked in person, eliciting the information via a paper or digital questionnaire captures more revealing answers, reflecting the stigma associated with being unable to provide food for oneself or one's family.[138 142 146 148-150]

A review of 29 peer-reviewed studies on food insecurity interventions, either alone or in combination with other interventions, identified three typical mechanisms: passive or active referrals to community and/or government agencies, vouchers for use at fresh produce outlets, and direct provision of food either by delivery or through an on-site food pantry.[151] It is, however, uncommon for studies to evaluate the outcome in terms of health or service utilization.[152] It is notable that food insecurity interventions are prevalent in the US and Canada. One explanation is that addressing food insecurity is in some ways a "quick win"; it is quick and easy to detect in screening and to document, and can be directly addressed with referrals to food banks or even on-site food pantries. This is far more achievable in a primary care setting than tackling upstream causes, i.e., income insecurity, and is in line with the proliferation of municipal-level food-based interventions.[153]

Housing

Lack of access to adequate housing is known to contribute to poor health.[154 155] Inadequate housing, sometimes described as housing instability or homelessness, is frequently identified in the literature on screening and intervention for unmet social needs.[156-161] Housing security status is a common component of social needs screening tools.[50 70 73 90 99 162 163] Knowing that a patient is homeless or unstably housed can have an influence on clinical decision-making.[164-167] Stabilizing housing is a key aim and outcome of inter-professional interventions and MLP programs.[21 97 98 108 168-172]

An interesting aspect of health system interventions to address social needs is their involvement in creating affordable housing. Most interventions of this kind to date have been in the hospital setting rather than in primary care, but they reflect a growing general awareness of the intertwined relationship between housing and health, and the merits of a Housing First approach.[173-180] It remains to be seen whether this interest in direct intervention in the form of affordable housing emerges in the primary care sector too.

Service user and service provider perceptions of facilitators and barriers

Service users

While primary care providers report in studies that they fear they will create unrealistic expectations among their patients, other studies have found that, on the contrary, patients understand the limitations of what their doctors can do to address their social needs, but

nevertheless appreciate their efforts to do so. They feel cared for and find screening for social needs acceptable. [40 148 155 181-184] However, this requires that broaching the subject of social needs is done with sensitivity to patients' feelings of stigma, and fear of being reported to social service agencies if, for example, they disclose that they do not have enough food to feed their children.[149 184] Some studies report that patients welcome in-person help, while others prefer screening and referral modalities that are not face-to-face and which can help overcome barriers of stigma.[149 161 185 186] Patients do not always want their primary care providers to act on the identified unmet social needs.[163 183]

Service providers

Social needs screening is valued by physicians as a way to improve their understanding of their patients.[46 148 163 182 187] In the US, for CHCs, screening often formalizes what they are already doing.[188-190] However, even among motivated physicians, uptake of screening can be low, unless it is routine and/or mandatory.[155 191-193] Successful implementation relies on staff buy-in, training, integration into clinic workflows, and, for the best results, a clinical champion.[167 194-197] It requires the service provider to overcome ignorance about patients' lived reality of poverty, push past discomfort when asking potentially stigmatizing questions, and have the communications skills to do so.[95 198 199]

Whereas primary care has strong linkages to other parts of the health system, linkages with social services are weak, and navigation is complex and can hinder primary care providers' efforts at referral.[200] Implementation of a social needs screening and assistance process can be challenging and resource intensive.[163 198] Facilitators include physical proximity, clear pathways for referral,

and a sense of mutual respect and shared aims, as well as practical considerations such as allocation of staff time away from clinical duties.[197 201]

A common theme in the literature is the key role played by a patient navigator. There are many terms to describe this connector role, including link worker, community-links practitioner, income security health promoter, family specialist, and care navigator.[33 54 202-204] The connector can also help bridge the gap between the norms and values of medical practitioners and the social services sector, improve physician satisfaction and help prevent burnout.[155 197 205-211] For the connector, common challenges include boundary setting and managing client expectations. Facilitators of success include lived experience of poverty, training and active buy-in from care providers.[205 212]

Discussion

By far the most numerous were papers on interventions in the US. Apart from the sheer size of the population and complexity of the country's health systems, several possible reasons for the preponderance of interventions emerged from the literature. Firstly, professional and government bodies, including the American Academy of Pediatrics and the American Academy of Family Physicians, have participated in the call for physicians to address SDOH.[213-215] Both the National Association of Community Health Centers and the Centers for Medicare and Medicaid Services have produced SDOH screening tools.[50 75 79] Secondly, there are readily identifiable suitable venues for SDOH interventions, including CHCs serving Medicaid recipients and the uninsured.[171 216-218] Pediatric clinic settings, in which children typically have regular check-ups together with a caregiver, have also been a key site for such interventions in the US.[85 90 211 219-221]

Thirdly, there are favorable funding mechanisms, financial imperatives and incentives. The metric of hospitalization cost savings—with broadly similar and positive findings—was used in several studies under review.[168 222-227] Both Medicaid Managed Care Organizations (MMCOs) and Medicaid Accountable Care Organizations (ACOs) are actively involved in addressing SDOH.[228-231]

Although social needs screening and interventions in primary care have really taken off in the past 5 to 10 years, they have a longer history than this trend would suggest. There were previous trends in this direction more than 20 years ago, such as the work done by family physicians in the UK to partner with welfare rights providers.[109 232] Similarly, in Canada, as early as 2001, the health sector was identified as a forum within which poverty could be addressed in the country, and since then it has been the source of a series of interventions to address poverty among patients. [19 233]

Whatever the organizational structure, the ability to code and bill for non-medical services is key, and this is particularly apparent in the US.[234] In order to bill for services, health providers must typically input an International Statistical Classification of Diseases and Related Health Problems (ICD) code.[235] In the 10th ICD revision, there are 10 codes that relate to a patient's socioeconomic and psychosocial circumstances. [236] However, the codes are somewhat of a "blunt instrument", and the existence of a billing code does not in itself guarantee that a service related to it will be billable.[237]

For any intervention to gain traction, especially with policymakers for funding, it is essential to be able to make a case for it, and to make a case that is stronger than that for competing priorities. Producing quantitative data to support advocacy for interventions such as the ones discussed in this paper is challenging, because it is difficult to determine valid metrics. Measuring the health impacts of SDOH is in itself difficult, let alone interventions to address them. With so many comingled and intersecting factors, it is hard to tease out the effect of one thing or another. Moreover, health improvements may manifest over a long period, making them difficult to measure within the time constraints of a pilot project, for example.

Measuring success has proven challenging, and the literature to date suggests a number of tensions with regard to evaluation. Is patient self-reported well-being a good enough metric to define a program's success? Are changes in health service utilization an adequate proxy for changes in health itself? Do health interventions have to yield benefits that are visible to the health sector to be deemed worthy of funding, or considered successful, or could the benefits accrue more tangentially, such as through a decreased burden on the social welfare or justice system, or better educational outcomes? These are all issues that have yet to be explored in the literature.

While patient perspectives on income interventions have been examined, so far the emphasis has been on provider-led interventions. There is clearly more scope for more experimentation with community-led interventions (such as those from the Bromley by Bow Centre in London), and more analysis of them.

Strengths and limitations

While other studies have examined some of the themes covered in this scoping review, this is the first to take such a broad sweep of the landscape of interventions targeted toward patients' poverty, and to consider experiences across different countries, rather than focusing solely on the US. However, by only searching for publications in English, it may have missed peer-reviewed studies and grey literature published in other languages. The authors are aware, for example, of social needs screening tools that have been implemented in Japan, but this data could not be included under the inclusion criteria because it is only available in Japanese. As this is a scoping review, there is little examination of program efficacy and the sample for this descriptive review is non-random, comprised as it is of interventions that have attracted the interest of some academic researchers. This may create a biased view.

Conclusion

There is a wide range of tools and processes in use to identify patients experiencing poverty, and to address their economic needs, ranging from those tailor-made to an individual health practice, and addressing one specific dimension of SDOH, to wide-ranging protocols that collect rich sociodemographic data. Primary care-based interventions that aim to address patients' income needs operate at all levels, from passive sociodemographic data collection upon patient registration, through referral to external services, to direct intervention in addressing patients' social insecurities, such as providing on-site services including welfare system navigators and food pantries. The decision to undertake this work requires courage on the part of health care providers, because it can be difficult, time-consuming and complex. Success often relies on management buy-in and a practice champion. However, it is often appreciated, even when the

scope of action available to health care providers is quite narrow. Economic needs interventions are typically found in settings with an identifiable patient population likely to have high unmet needs, with the number, scope and sophistication of programs and interventions greatest in the US. Barriers to implementation include not just cost and time, but also navigating the complexity of the social welfare system, the difficulty of billing for non-clinical services, and both patients' and care providers' emotions about what can be stigmatizing topics. Success is defined widely, from patient satisfaction to positive health outcomes, but data on health outcomes is not widespread.

Recommendations for future studies

There are several areas for potential future research. Firstly, the health impact of primary care-based economic interventions is a nascent field of investigation, and more research is needed to better investigate this. Secondly, the natural progression from individual-focused interventions, to those whereby the health care system engages at the community level to address upstream determinants, such as a lack of affordable housing and other infrastructural inadequacies, will be an interesting field of study. [20] Thirdly, the impact of COVID-19 on economic needs interventions in primary care, including the impact of remote service delivery modalities, is worthy of investigation.

Declarations

Ethics approval and consent to participate: not applicable

Consent for publication: not applicable

Availability of data and materials: the datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

Competing interests: the authors declare that they have no competing interests.

Funding: Jane Parry's doctoral work is supported by a Trillium graduate scholarship from the Government of Ontario.

Authors' contributions: all authors contributed to the conception and design of the work. JP was solely responsible for the data generation and analysis. JP drafted the work and JD, MV and MG substantively revised it. All authors read and approved the final manuscript.

Acknowledgements: not applicable

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Appendix: Search strategy

The following is the search strategy for the MEDLINE database.

As per the iterative nature of the scoping review methodology, searches change to reflect emerging insights. Accordingly, the search strategy presented here represents the most fruitful searches.

A search for published literature was performed by one of the authors (JP) on 7 and 8 August 2020 on MEDLINE (via OVID). The search was limited to English language publications and to studies on human and not animal subjects, published between 1 January 2000 and the date of the search (i.e., 7 or 8 August 2020).

Key word searches comprised a combination of social and health key words. MEDLINE searches were conducted iteratively using Boolean operators, starting with 'primary care' AND 'social determinants of health.' Subsequent searches took the first term and paired it instead with a number of terms identified through emerging analysis or from my previous research in this area: food insecurity, housing insecurity, income security, social needs, social needs screening, social assistance, social welfare, social prescribing, welfare rights, and link worker.

As the search progressed, the first search term was also expanded to 'primary care OR family practice OR health cent*' to capture literature that may only use these synonyms for primary care. Pairing 'primary care OR family practice OR health cent*' with 'poverty' and 'screening'

or ‘intervention’ yielded hundreds of results (394 for screening, 537 for intervention), but few (16 in total) studies that were relevant and that had not already been captured.

As the iterative search process progressed, searches yielded many results, and there were very few of relevance that had not already been captured, indicating that the searches initially conducted were successful in capturing most of the potentially relevant studies. The below table presents the most fruitful searches.

MEDLINE search strategy and main results

Search term	Search term	Search term	No of results	Excluded: not relevant/duplicates	Included for further screening
'primary care' AND	‘social determinants of health'		389	321	68
	‘social welfare'		119	112	17
	‘social needs'		160	136	24
	‘social prescribing'		44	13	31
	‘food insecurity' AND	‘screening’	42	14	28
	‘social needs screening'		8	0	8
	‘welfare rights'		7	0	7
	‘housing insecurity’		6	6	0
	‘income security’		5	5	0

	'social assistance'		**17**	**17**	**0**
	'link worker'		**12**	**12**	**0**
'primary care' OR 'family practice' OR 'health cent*' AND	**'poverty' AND**	**'screening'**	**394**	**387**	**7**
	'poverty' AND	**'intervention'**	**537**	**528**	**9**
	'social determinants of health' AND	**'screening'**	**97**	**75**	**22**
	'social determinants of health' AND	**'intervention'**	**86**	**86**	**0**
	'social needs' AND	**'intervention'**	**38**	**36**	**2**
	'housing' AND	**'intervention'**	**104**	**104**	**0**

	'food security' OR 'food insecurity' AND	**'intervention'**	**387**	**387**	**0**
	'economic stability'		**5**	**5**	**0**
	'employment' AND	**'intervention'**	**212**	**212**	**0**
	'social needs' AND	**'screening'**	**31**	**31**	**0**
Total			**2700**	**2487**	**223**

Paper 2. Income Security Health Promotion: addressing patients' unmet income needs in a Toronto family practice, a qualitative study

Preface

Building on the foundation of the scoping review, paper 2 examines one primary care intervention in detail: a service to address patients' unmet income needs. It is a case study of the Income Security Health Promotion service of the St. Michael's Hospital Academic Family Health Team in Toronto, Ontario, Canada. The study gathers the perspectives of key informants to understand the origins, context and functioning of the Income Security Health Promotion service. It explores the external forces and contextual factors that shaped the origin and development of the program, explores the desirable skill set for those working in the health promoter role, and its function within the circle of care. It offers important insights into how to create and sustain such a program in other primary care settings.

I conceived the idea for the study, established relationships with potential interviewees, secured ethics approval, and conducted open-ended, semi-structured interviews to gather the data for the study (conducted via videoconferencing, due to the restrictions on in-person research due to the COVID-19 pandemic). I conducted data analysis in late 2021 and early 2022, and wrote a preliminary version of the study in February 2022. I received a significant amount of feedback and comment from my thesis committee members (Drs. Dunn, Grignon and Vanstone), on how to improve, refine and condense the study. After several rounds of review, revisions from all committee members were incorporated into this final version.

Income Security Health Promotion: addressing patients' unmet income needs in a Toronto family practice, a qualitative study

Abstract

Poverty is acknowledged as an important social determinant of health, and health care professionals are responding to poverty in some high-income countries, most notably in the primary care setting. The Income Security Health Promotion service offered by the St. Michael's Hospital Academic Family Health Team in Toronto, Ontario, Canada, is an example of a primary-care intervention to address patients' unmet income needs. Understanding this service can be helpful to other primary care practitioners considering income interventions in their own setting. A qualitative case study was conducted to describe the origins, context and functioning of this intervention. Purposive sampling was used to recruit 12 key informants from the Family Health Team, including income security health promoters, clinicians and management, for interviews. The interviews revealed the origins of the service as part of a new and well-resourced family practice, with a team of clinicians well-versed in the social determinants of health and with a strong social justice orientation. They described the required skill set of a promoter, and the importance of assimilating the role into the circle of care. While there were specific contextual factors related to the institutional culture, history and funding of the service, experience in this setting also offers important insights into how to create and sustain such a program in other primary care settings.

Introduction

Poverty is acknowledged as an important social determinant of health (SDOH), carrying a higher risk of earlier death and worse health throughout the life course.[1] [2] Amid growing awareness of the deleterious effects of poverty on health, physicians who witness this dynamic in their clinical interactions with patients have increasingly sought ways to address it.[3] As they do not directly control the policy levers to ameliorate or eliminate poverty, some have sought instead to use their position in systems of care to refer people to services that can give them access to income and other supports that they had been unable to access previously. In some countries, including Canada, the United Kingdom (UK)[4] and the United States (US), the primary care health sector has been actively engaged in performing social needs interventions, including those directly or indirectly related to unmet economic needs.[5] [6] Much of the research on such activities is focused on what programs do. Less is known about what might motivate a primary care practice to implement such a program, how such programs came about, how they operate, and how they are perceived by the staff responsible for managing, running and referring to them.

The objective of this study is to examine the origins, context and functioning of the Income Security Health Promotion (ISHP) service offered by the St. Michael's Hospital Academic Family Health Team (SMHAFHT), within a large primary care practice in downtown Toronto, Ontario, Canada. The study gathers the perspectives of key informants involved in the SDOH committee within the SMHAFHT. The paper first considers views in the literature about physician involvement in patients' unmet economic needs, and describes the background of the SMHAFHT and the ISHP service. Next, it presents the study design, including methods used, data collection and data analysis. The findings are presented in three categories: the Income

Security Health Promotion service: origin, context, facilitators, and challenges; qualities of an effective income security health promoter; and benefits of integration within a multidisciplinary primary care team. It is followed by a discussion of the findings and conclusion.

Background

Physician involvement in patients' unmet economic needs

Primary care in particular offers promise as a suitable site within the health care system for anti-poverty interventions. Primary care is designed to be "first-contact, continuous, comprehensive, coordinated care."[7] Ideally, primary care physicians are able to see their patients in the context of their family and community.[8 9] The continuous aspect of primary care enables physicians to establish trust with patients.[10] At its best, primary care spans the life course of patients, and encompasses whole families in the circle of care.[11] The appropriateness of the primary care setting as an arena to address SDOH has been affirmed by family physicians in many high-income countries.[12-16]

While primary care may provide an excellent opportunity to address patients' unmet economic needs, whether or not health professionals can or even should do this is still contested. Patients may not expect or even welcome such interventions from a health care provider, and providers run the risk of unfulfilled patient expectations, or raising issues that they are not empowered to address, while taking time away from clinical care.[17-19] However, there are compelling reasons for primary care providers to find ways to address the health impact of poverty. They are uniquely situated to witness the manifestations of unmet income needs—such as food insecurity,

inadequate housing and precarious employment—all of which can undermine providers' efforts to improve their patients' health.[20-24] Thus, there is a direct incentive for them to try and address these needs.

In both Canada and the US, community health centers (CHCs) have for decades been engaged in addressing SDOH, not least because their remit is typically to care for the most socially deprived and disadvantaged segments of society.[25] [26] There is a growing body of research on primary care as a site for social needs interventions, especially given its role as the point of first contact, not just for medical treatment but for the broader conceptualization of primary care, encompassing disease prevention and health promotion.[27] We have previously investigated the plethora of screening tools for unmet social and economic needs, ranging in scope and complexity from single-question tools to detailed questionnaires on multiple aspects of patients' lives, and found that there were at least a dozen toolkits to help primary care physicians and other health care providers implement screening protocols and practices.[5] Studies have examined a wide range of income-needs-specific interventions, such as medical–legal partnerships, which have proven success in helping clients access external support and legal redress to poverty-related issues such as unpaid welfare payments.[28-30] Other interventions that have been widely researched include those focused on welfare rights, food insecurity and housing. These studies have examined a variety of outcomes, such as patient-reported quality of life and health improvements,[31] hospitalization rates[32] and income increases.[33] [34]

To overcome the barrier of limited time with patients, studies have found that if the care team is expanded to include those specifically responsible for addressing patients' non-clinical needs,

such as income insufficiency, the role of the primary care team can be expanded.[35] [36] Numerous examples of this approach can be found, demonstrating the efficacy and efficiency of dedicated welfare rights workers.[37-44] There is also a body of research on care providers' perspectives on such interventions, which has shown that physicians value social needs screening and see it as a way to improve their understanding of their patients.[12] [45-48] Routine or mandatory inclusion of the intervention; staff buy-in, typically led by a clinic champion; protected time and training; and integration into clinic workflows, have all been identified as key facilitators.[49-57] Implementation of a social needs screening and assistance process has been shown to be challenging and resource intensive.[47] [58]

St. Michael's Hospital Academic Family Health Team

The SMHAFHT practice is an example of efforts in Canadian health care to move beyond diagnosis and treatment of illness and injury more commonly found under a fee-for-service [59] funding model, to offer comprehensive, team-based care that is not funded only by fees for service.[60] Founded in 1892, St. Michael's Hospital is a Catholic teaching and research hospital in downtown Toronto, where it operates five primary care clinics offering interdisciplinary team-based care.[61] The clinics' 264 staff—including family physicians, nurse practitioners, registered nurses, social workers, dietitians and other health professionals—serve more than 47,000 patients.[62] In 2010, the Family Health Team, which works across all five sites, introduced a screening tool for primary care physicians to routinely ask all patients whether they were "having trouble making ends meet at the end of the month" (i.e., sufficient income to cover expenses). In 2013, the team established the Social Determinants of Health Committee, tasked with creating targeted specialized programs to address the negative health impacts of the SDOH.[63] [64] This

interprofessional committee meets regularly and includes members representing all clinical sites, team leadership, most clinical disciplines, family medicine trainees and patient advisors.[65]

The Income Security Health Promotion service

In 2015, the team successfully advocated for funding from the Ontario Ministry of Health and Long-Term Care for health promoters, and chose to focus this role on income security. At the time of writing, the team had two full-time ISHPs. Patients are referred by physicians and other clinicians and the ISHPs are members of the clinical care team. They spend time at all five sites each week. The ISHPs work with patients on improving their income security, typically in a series of six face-to-face sessions. This can include, for example, assistance with tax filing, advocating on behalf of patients with social welfare agencies, and support with debt management and budgeting. The ISHP job description also includes education of staff on the services available and external advocacy on income issues that relate to health.

Given that the St. Michael's ISHP service is one of the longest-running and most well-established unmet income needs programs in the Canadian primary care setting, it is especially valuable to understand the service in the context of the "patient's medical home" concept, which has been promoted in the US, and in Canada by the College of Family Physicians of Canada.[66-68] A more nuanced understanding of the ~~s~~service can usefully add to our understanding of the pillars of the patient's medical home concept—especially "connected care," and "community adaptiveness and social accountability." The concept explicitly states that patient medical homes should strive to assess and address the SDOH (including income) as relevant.[68]

Income security health promoters (ISHPs) work as part of the interdisciplinary team, integrating income needs with other patient needs. Studies have found that the service is "acceptable and feasible within primary care"[69] and that it is successful in helping patients increase income (77.4%), reduce expenses (58.6%) or improve financial literacy, i.e., discussing budgeting and explaining benefits eligibility (26.5%).[70] A randomized controlled trial (RCT) is currently underway to evaluate its impact on income, financial literacy, mental health and quality of life.[71] However, to date there has been limited examination of the experiences of those involved in managing, delivering and referring to the service.[21 72 73] What is not well understood is the experience of those who are involved in the creation, management, operation and use of the ISHP service. By examining this program in this way, it is possible to understand its context, the facilitators of its success, and its limitations and shortfalls. This can also help us understand and interpret the results of the RCT (impact on patients), which will allow us to go beyond the "it can work" of an RCT to the "this is why it works" that is necessary to generalize the intervention to other contexts.[74] It can usefully inform efforts to set up similar programs in other settings, and can help us understand the motivations of primary care practices and, potentially, the reasons why some might be reluctant to implement such programs. Furthermore, it can help us understand why and how these programs succeed or fail once implemented.

Methods

Study Design

This study uses a qualitative descriptive design, chosen because it is intended to discover and understand a phenomenon from the perspective of those involved.[75 76] This design supports

staying close to the surface of the data, and using easily understood descriptive language.[77 78] This approach facilitates the gathering of rich descriptions about a little-known phenomenon, and allows for flexibility in the path of inquiry in response to the real-world context, and naturalistic study methods.[79-81]

Sampling and Recruitment

We employed a purposive sampling strategy to identify participants based on their expertise and experience in the creation, management and delivery of or referral to the ISHP service, or close professional association with the service. Key informant interviews have been recognized as an especially useful means to conduct an "initial assessment of an organization or community issue, allowing for a broad, informative overview of what the issues are."[82] The objective of the recruitment process was to interview a sufficiently diverse selection of participants: the two current ISHPs, some colleagues within the team from related disciplines of social work and legal aid services (as their services could reasonably be expected to have some degree of overlap with the ISHP work), the senior management of the Family Health Team, and a sample of family physicians who are familiar with the service, and who refer their patients to it.

Potential interviewees were identified, based on prior professional collaboration between one of the authors (JP) and the health team's Social Determinants of Health Committee. This professional contact enabled the authors to capitalize on existing relationships with committee members with whom there was already an established basis of familiarity and trust, and to have a strong grasp of who would be in a good position to discuss the ISHP service. One key informant in particular was especially knowledgeable, and they were consulted to help determine the final

list. This list was then shared with another member of the committee, who was not interviewed for the research but who was very familiar with the service and in a good position to provide informed feedback on the chosen target interviewees. Requests for permission to contact were then sent to 14 potential interviewees, via a third party within the team known to them. Given the very specific nature of the research question and the requirement to be a key informant with a high degree of knowledge of the ISHP service, we identified all relevant key informants and interviewed all who were willing to participate.

Ethics approval was obtained from the McMaster Research Ethics Board (MREB#: 5305) and the Unity Health Toronto Research Ethics Board [83: 54 21-081C] (St. Michael's Hospital is part of the Unity Health network), and all participants provided written informed consent.

Data collection

In August and September 2021, semi-structured interviews were conducted by one author (JP). Prior to the interview, interviewees received a list of the proposed questions, and these were used to guide the conversation. Due to COVID-19-related restrictions, all interviews were conducted remotely, 11 using the Zoom videoconferencing service, and one, as requested by the interviewee, by phone. With the participants' permission, all the interviews were recorded, the audio recordings were transcribed and the transcripts checked against the audio files for accuracy. The interviewer kept a journal in which she recorded process memos and engaged in reflection.

Analysis

Data analysis was conducted by JP. She began by immersing herself in the interview data, creating initial thematic categories, and subsequently identifying sub-patterns and sub-themes. The initial construction of themes was deliberately tentative, and remained so throughout the process of data analysis. The analytic strategy borrowed from the constant comparative analysis method whereby patterns are identified and refined as the information from each transcript is coded and compared across categories, an established method of analysis used within qualitative descriptive research.[84] [85]

The research methods and findings were assessed according to five quality criteria for qualitative research: credibility, dependability, confirmability, transferability and reflexivity.[86] [87] The chosen method of data collection is credible because it is appropriate for the research question by supporting in-depth engagement with key informants who were intimately familiar with the ISHP service, and who had a good knowledge of its evolution. The criterion of dependability requires that there is enough information provided to enable another researcher to follow the same procedural steps (although the conclusion may be different), and this information has been provided. With ample use of direct quotes and reported speech in the research findings, the criterion of confirmability was met. As for transferability, one stated purpose of the research was to examine the extent to which the experience of this service could be replicated elsewhere, and what contextual factors affect this. For the purpose of reflexivity, the interviewer engaged in continuous reflection on potential for bias and was transparent about her prior experiences and how they influenced research decisions and interaction with participants.

Results

Twelve of the 14 potential interviewees who granted consent to contact and were subsequently interviewed (table 1); two did not respond. They comprised management, family physicians, the two current ISHPs, and other non-clinical professionals. The duration of each interview was approximately 60 to 75 minutes.

Table 1. Profile of participants

Role	No of interviewees
Management	4
Income Security Health Promoters	2
Other non-clinical professionals	3
Family physicians	4

Note: One interviewee was both a manager and a family physician.

Non-physician clinicians were not identified as key informants.

The results are presented in three sections: the origins and context of the ISHP service, the qualities of a good ISHP service provider, and the benefits of integration within a multidisciplinary primary care team.

The Income Security Health Promotion service: origin, context, facilitators, and challenges

St. Michael's Hospital and health equity

The context around the ISHP service is significant because it grew out of an existing social justice orientation within the Family Health Team, which then led to the team identifying an unmet need within its patient population. Participants spoke of the work to address SDOH,

including the ISHP service, in the context of the culture and values associated with the team's mission of equity-focused care. Several participants explicitly stated that the Family Health Team's social justice reputation—characterized by the formation of the SDOH committee—was one of the reasons they sought employment there. The team has long attracted socially progressive primary care clinicians who are particularly attuned to the social conditions of their patients and how these impact health.

> *"There's a stream of activism amongst members of the department and a desire to create targeted clinical programs to address particular needs of individuals and groups that experience social marginalization." (P11)*

This equity focus extended beyond the frontline medical staff, and included management, participants said. This strong orientation toward social justice at all levels of the organization was crucial to the establishment of the ISHP service as part of a suite of SDOH interventions, under the aegis of the SDOH committee, participants said.

> *"I think the leadership is also a key piece, in our strategic planning and in all of our messaging across the department, really emphasizing that equity is the heart of what we do." (P02)*

Participants spoke of the high visibility of poverty within their patient population, frustration with the limitations of medical care services to help patients achieve optimal health, and a desire to do more.

> *"We were starting to screen people, asking if they were struggling but then what? We had a very robust comfort fund where we can help people with a one-off food voucher, but that's not a sustainable model of trying to increase income." (P03)*

When asked what advice they would give other primary care practitioners considering engaging in social needs interventions work, their response was to start with a thorough and collaborative assessment of the demographic composition of their patient population needs.

> *"First and foremost, you've got to do a needs assessment, figure out who your patient population is. Whatever community you're in, their needs are going to be different." (P10)*

As a starting point, clinicians can routinely screen patients with a simple poverty screening tool and refer them to external sources of support, such as local food banks. This requires clinicians to educate themselves about what social supports are available to their patients. But participants thought that this work would likely only be sustainable when there were dedicated staff, such as an ISHP, to take it on. This requires a dedicated budget, which must also cover the administrative burden of operating an SDOH committee, as well as educating clinicians on how to adopt a health equity lens, and how to use the screening tool.

> *"You actually need to dedicate time, funding and personnel to it. If you have a clinician that's already working at 100% capacity, this is not possible for them to just take on." (P08)*

Finding opportunities within the existing system

In 2015, a fifth Family Health Team clinic, the Sumac Creek Health Centre, was resourced to open in the high-needs Regent Park neighborhood of downtown Toronto. This presented a window of opportunity: the funding application for the new site offered the opportunity to apply for funding for innovative services that could then be used by the Family Health Team as a whole, across all five clinics. This new funding presented an opportunity to gain resources for innovative program delivery.

> *"*[This work] *is resource intensive, and you have to have specific funding or programs that cater to these alternative approaches." (P01)*

Two new positions, called ISHPs, were included in the funding request for the interprofessional team. The choice of job title was a pragmatic one: generic health promoter positions were already an established occupation in both CHCs and family practice teams, and this helped the funding request to go through without challenge.

> *"I don't think the funder saw this as an innovative program, they just saw they were giving us health promoter positions." (P04)*

In a typical family practice, it would be unusual to have an in-house social worker, let alone a role as specific as an ISHP, participants said. The decision to hire and fund the ISHP positions gets around the issue of how to bill for non-clinical services were this role fulfilled directly by a physician. The blended team-based care funding model supported the practice to be able to take on patients with complex needs, and the team-based care funding model, which includes ISHP, in turn enabled the team to better serve the needs of those complex patients, participants said.

> *"There's a huge structural component to the question of why physicians do this, and it's not just about physician role. It's not just about time, it's also about billing structures….I think broadly, the idea of having any allied health professional, particularly income security, or social work, allows us, I think it increases our capacity to roster more socially complex people."*
> *(PO9)*

An intervention with financial limits

The ISHP service can only work within the limits of the financial supports that are available to its patients. The service on its own could not fix the dysfunction of the existing social safety net, and one of the most challenging aspects of the work was managing patients' expectations, participants said. As such, one of the most common presenting problems—lack of adequate and/or affordable housing—frustratingly falls outside the scope of what they can do.

> *"We try our best to really manage expectations from the beginning but it can be tough sometimes, when they still want our support, but there're no other*

> *resources to connect them to. So it becomes a challenge in those instances." (P07)*

However, even when, post-intervention, a patient is still on income that keeps them below the poverty line—for example, going from C$700 a month to C$1,100 a month—this can be positively impactful. Adding that the same is true of most primary care interventions, one participant said:

> "*We're not going upstream to a lot of what we do, we're patching things up and putting on Band-Aids all over the place, so it very much fits within that medical mindset. It's important to recognize that limitation, but I think it at least expands what the potential of what the medical mindset is." (P11)*

The original intent of the ISHP service was to combine patient support, physician education and advocacy, but the advocacy has not fully developed, with the bulk of the health promoters' time being taken up with individual patient-focused work, especially in the last two years due to the COVID-19 pandemic. This represented a missed opportunity to take what the ISHPs were seeing on the frontlines of their work, and using that as a catalyst for social change, one participant said. Others commented that it was incumbent on all of them, especially physicians, to do this advocacy work.

> *"As physicians have a great ability to do that* [advocacy] *as well, and we should see our greatest impact as being about advocating for social policy*

change that will address upstream concerns, to make all of this unnecessary." (P09)

Qualities of an effective income security health promoter

Participants described the qualities essential for an effective income security health promoter. A genuine passion for the work, combined with strong counselling skills, were the most commonly cited qualities. The role requires skills in empathy, active listening, trust-building, de-escalation and being non-judgmental. They must also be sufficiently reflexive to recognize their own potential for bias when interacting with patients.

"It's quite hard to pull this kind of information out of someone without making them feel uncomfortable." (P05)

Lived experience could be helpful, participants reported, but was no substitute for education, preferably in health and/or social work, and for some time the service had implemented hiring practices that required certain credentials. Past hiring missteps gave way to this new requirement, to ensure the staff in this role were well equipped to deal with the complexity of patients' problems. ISHPs need an in-depth knowledge of the resources available in their community, and must be tenacious and persistent when advocating for patients with, for example, social welfare system case officers.

> *"They need knowledge of community resources, to know who to go to and for what, and really know how to support patients in navigating these different pathways." (P02)*

They also must have a clear understanding of the boundaries of their role, where they fit within their team and who they can go to for support when patients' needs are out of their scope.

> *"You just can't have somebody who is siloed in their economic platform because when you put this individual in front of a patient who has complex issues and, in most cases, mental health [issues], it becomes very overwhelming. Through our development of this position, what type of skill set will excel was also a learning process for us." (P01)*

The recruitment and retention of good ISHPs has been difficult, in part related to the sophisticated skillset required, confusion about scope, and a perception that the role was undervalued.

> *"I think people don't respect health promotion or health promoters, and they also don't pay them as well as they pay other positions, so we have people who are social-work-trained who are not getting paid at the level of their colleagues. It's been problematic for retention, not surprisingly. And it's problematic just for respect from others in the team. In some ways, it's problematic for scope." (P11)*

Benefits of integration within a multidisciplinary primary care team

Participants cited advantages for patients, the ISHPs and the clinicians in the integration of ISHP services into the clinical team. This goes beyond co-location, and includes ISHPs' access to patient charts. Integration enables quick and direct communication between the clinical staff and the ISHPs through the patient chart messaging function. Clinicians can easily stay up to date post-referral, and the ISHPs are also able to share information that can help flesh out their picture of the patient. As one physician participant said:

> *"Oftentimes, the health promoter will say, 'Let's touch base, I just had some questions about this,' and I'll do the same for them. So it's much more collaborative in that sense, and, and we're able to do more and we're able to do it faster than if it was someone who was external to the team." (P06)*

High levels of patient and physician acceptance

There were reported high levels of acceptance of the offer of referral to the ISHP. Patients were often surprised that the service existed, but almost all of those who accepted a referral would then follow through with meeting with the ISHP.

> *"I don't get as much resistance as I initially anticipated. I do get surprised, but it's more, 'Oh, yes, I would love some help with this.' I haven't really had any bad reactions or any resistance to it." (P06)*

The health promoters reported widespread use of the service by physicians referring from all five clinics. Physician participants said that they had a responsibility to address their patients' poverty, yet they were constrained by the limited amount of time they spent with patients and their lack of specialist knowledge in this area. They liked having an on-site ISHP because they could ask their patients about their income specifically, and then address it through a form of specialist referral to someone who could spend more time with the patients and look closely at their financial situation. As one ISHP said:

> *"It's not that doctors aren't capable, but with their caseload they don't have time to get insight into that. They'll tell me something about their patient, and I'll say: 'No wonder [the patient's] been so stressed out; did you know she's making $500 payments to her Visa [credit card] each and every month?'"(P08)*

A significant mediator of that acceptance is the relationship of trust between patients and physicians. This is a significant enabler of referral, with ISHPs benefitting from a "transfer of trust" [P08] to them, based on trust in the referring clinician.

Role of the SDOH committee

Advocacy for ISHP needed to come from within the practice itself, according to participants, and also required full management buy-in, with the intervention situated within the practice's strategic planning. The fact that the service is incorporated into the practice's strategic planning

was cited as important by several participants. Such services came about because there was a practice champion, participants said (and there was clearly a practice champion in their team), but it was important to formalize this interest in social justice from within the care team. The formation of an SDOH committee was frequently cited as a particularly important step in this regard. This structure is needed to bring together a large, interprofessional group, to create a culture that supports this work.

> *"My suggestion is to first understand the passion within your organization and who's passionate about doing this type of work, and bring those folks together." (P01)*

Discussion

The results of this study show how an intervention to address patients' unmet income needs grew out of a pre-existing commitment to social justice, supported by an SDOH committee, with funding made possible through the advent of a new health care facility in a politically high-profile area with high rates of poverty. It showed what characteristics were needed for someone to be effective in the ISHP role, and described how that service benefited everyone involved when it was fully integrated into the circle of care.

Seven years since its inception, the St. Michael's ISHP service is well-established and is now at a mature stage of development. From this vantage point, it is possible to look back at its origins and understand why the service emerged in this setting; what it has in common with similar

interventions in other settings and its context-specific enablers; and to what extent this modality for addressing patients' unmet income needs can be replicated in another setting.

The ISHP service emerged as part of an evolutionary process of addressing health equity within this primary care practice, and its origins lie, firstly, in a longstanding culture of equity-focused, social-justice-oriented work. The experience of this team suggests that such an equity focus is in the vision and mission of the organization, and that, for it to translate into action, it also needs to be a core element of the organization's strategic plan. This creates the framework for specific initiatives to come into being. Studies of other settings support this, identifying management and clinician buy-in as key to the success of social needs interventions.[57] [56] Having a clinic champion is another common theme from studies of other settings, and this was also apparent at St. Michael's, where there was a clearly identifiable champion for this work, in addition to overall staff interest.[55] [88]

The steady funding for the ISHPs is crucial to the sustainability of this program. It could be argued that there was an element of luck in the creation of the ISHP post, as it was nested in a far larger funding application for a new health centre in a high-profile area that the government of the time was amenable to resourcing well. As one participant noted, the site probably had better funding than any other Family Health Team in the province. When the funding opportunity rose, the preparatory work had been done in the form of an equity focus already woven into the organizational culture, and an SDOH committee that had been established two years earlier.

The team's equity focus informed a decision to screen patients for poverty, which in turn led to an identified need to intervene that could not be met by screening alone. This organic growth in response to observed need in clinical encounters reflects what is seen in other settings, such as community health centers in the US, where initiatives to address the SDOH have evolved over many decades and have more recently increased in momentum and scale.[26] It also echoes the experience of the Bromley by Bow Centre in London, UK: arguably the most significant takeaway from their model is the importance of grounding any social needs intervention in person-centered, grassroots demand.[89]

Integration rather than simple co-location of income security and clinical services is one of the defining features of the St. Michael's service. Whereas co-located services share the same physical space, integration goes beyond this to consider income security as one of the team's functions, alongside clinical care. It grants access to patient records and the ability to add to the records and communicate directly with other team members through the patient record messaging function. The advantages of this have also been identified in other settings, such as the Deep End Advice Worker Project in Glasgow, UK, where embedding the advice worker into the care team is seen as enabling greater reach and service efficacy, and enabling them to benefit from the established relationship of trust between a patient and a doctor.[38 90]

How the ISHP role is named is very important. In fact, non-clinical staff whose role is to help patients connect to social or economic supports have numerous titles in other organizations, including link worker, navigator, welfare rights officer and community links practitioner.[91] The

importance of what that name means in the context in which it is used is underlined by concerns that the ISHP title creates some problematic limitations and assumptions.

The funding model for both physicians and the ISHPs plays a crucial role in the service's sustainability. The practice's physician funding model is a blend of FFS and capitation. This overrides the typical disincentive of pure FFS, which is limited to the scope of the physician's service. On its own, the capitation model may also present disincentives to such programs because it encourages cherry picking of more healthy patients. Arguably though, it is not the primary care funding model *per se* that determines the feasibility of having a line item on the budget for an ISHP, but whether or not the family practice has adopted team-based care and is willing to fund an ISHP role. There are other examples where funding for social care programs such as this one are patchworked together from a range of sources, including patient revenue streams, grants and non-traditional methods of revenue generation in the health care setting, such as social enterprises, but this makes long-term planning difficult, unlike the St. Michael's model.[92] In the US, the rapid proliferation of accountable care organizations and explosive growth in the adoption of the patient-centered medical homes concept (which the SMHAFHT has also adopted) are an expression of a wider movement toward value-based care, which may be more supportive of efforts to address SDOH inequities, as it rewards health care providers for healthier patients via financial accountability mechanisms.[93] [94]

It is clearly possible to replicate the "St. Michael's model"—a similar service has been set up in Winnipeg, for example.[95] However, in considering whether to set up a similar service, it is important to consider the unique factors described above that were instrumental in the emergence

of this program. It is also important to be clear about what it can and cannot achieve. An ISHP service can help patients get more money, which may or may not lead to measurable improvements in health.[96] However, there is evidence from this and other social needs interventions that it does lead to improved patient-reported well-being.

Strengths and limitations

The strengths of this study are that through open-ended conversational interviews with key informants, it was able to uncover some of the less tangible reasons why this program exists in this setting rather than in other family practices in the same place. However, one limitation was that the recruiting process made it difficult to include strongly dissenting voices, of those who, for example, may have been unsupportive or highly critical of the service. Another limitation was the lack of opportunity to include first-hand patient perspectives. This was beyond the scope of this study, but a study of this kind would be a valuable contribution to the literature on the efficacy of primary care-based income interventions.

Conclusion and next steps

This study explored how key informants viewed a service within their primary care practice to help patients address their unmet income needs. Eliciting these views can shed light on what factors lead to the creation of such a service, and what elements need to be in place for it to be financially sustainable and well-used. Understanding these factors can be helpful to other primary care practitioners considering social needs interventions, specifically those related to income, in their own setting. The opportunity to include first-hand patient perspectives was

beyond the scope of this study, but a study of this kind would be a valuable contribution to the literature on the efficacy of primary care-based income interventions.

Acknowledgements. The authors acknowledge the generous contribution of the interviewees to this research, without whom it would not have been possible.

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Appendix

Interview Questions

Case study of the work done by St. Michael's Hospital Academic Family Health Team to address economic insecurity among their patients experiencing poverty

Jane Parry, (PhD student)
(Department of Health, Aging and Society – McMaster University)

Information about these interview questions: This gives you an idea what I would like to learn about the services offered by SMHAFHT with regard to addressing the income needs of patients experiencing poverty. Interviews will be one-to-one and will be open-ended (not just "yes or no" answers). Because of this, the exact wording may change a little. Sometimes I will use other short questions to make sure I understand what you told me or if I need more information when we are talking such as: "*So, you are saying that …?*), to get more information ("*Please tell me more?"),* or to learn what you think or feel about something ("*Why do you think that is…?").*

Questions for clinicians and staff directly dealing with patients:

1. Please describe your role in the SMHAFHT and how this role puts you in contact with patients.
2. Do you consider that as a clinician you do, or should have, a role in addressing social determinants of health among your patient population?
3. Are you involved in screening patients for their economic and social needs?
4. When you see patients/clients, do you see a direct health impact from poverty?
5. Do you talk to patients about their socio-economic circumstances?
6. How does the socio-demographic screening and income support health promotion (ISHP) and legal support work that SMHAFHT does fit into the broader scope of work of the clinic, i.e., how does it function in relation to health service provision, and in relation to the other SDOH work done within the practice?
7. Do you try to address issues relating poverty (e.g., refer to ISHP or legal services or other sources of support)?
8. What do you think of the ISHP and legal support programs, in terms of your work as a clinician, and also in terms of the impact on patients?
9. The SMHAFHT work in this area is quite unusual, and is not widespread in Canada or the rest of the world. What do you think are the contextual factors that have made this kind of intervention come about and evolve here?
10. How has it evolved over time?
11. What has shaped that process?
12. What threats have you seen to the program over time and how were they overcome?
13. How has the program navigated threats to its existence both within and outside the organization?
14. To what extent is the program subject to monitoring and evaluation (M&E)? Is its impact measured?
15. Other than formal M&E, have you done any informal evaluation of patient/client satisfaction? Is there any scope for input into the program's structure or services from its clients?
16. What changes did the intervention bring about for patients/service clients?
17. Did follow-up reveal positive changes to income, food security, housing quality/security, self-rated quality of life/health measures?
18. What lessons does this program hold for others hoping to achieve the same kind of results in other settings, i.e., to what extent do you think your experience is transferrable to other settings?
19. Is there anything else you would like to add?

Questions for ISHP/legal service providers

1. Please describe your role in the SMHAFHT and how this role puts you in contact with patients/clients.
2. Are you involved in screening patients for their economic and social needs?
3. When you see patients/clients, do you see a direct health impact from poverty?
4. Do you talk to patients about their socio-economic circumstances?
5. How does the socio-demographic screening and income support health promotion (ISHP) and legal support work that SMHAFHT does fit into the broader scope of work of the clinic, i.e., how does it function in relation to health service provision, and in relation to the other SDOH work done within the practice?
6. Can you please walk me through the process of working with clients to address their issues relating poverty?
7. What do you think of the ISHP and legal support programs, in terms of their place in the practice's work as a whole, and also in terms of the impact on patients?
8. The SMHAFHT work in this area is quite unusual, and is not widespread in Canada or the rest of the world. What do you think are the contextual factors that have made this kind of intervention come about and evolve here?
9. How has it evolved over time?
10. What has shaped that process?
11. What do you think are the characteristics of an effective ISHP/ legal services provider in the context of primary care?
12. Can you talk about the challenges that you have had to navigate in your role?
13. What threats have you seen to the program over time and how were they overcome?
14. How has the program navigated threats to its existence both within and outside the organization?
15. To what extent is the program subject to monitoring and evaluation (M&E)? Is its impact measured?
16. Other than formal M&E, have you done any informal evaluation of patient/client satisfaction? Is there any scope for input into the program's structure or services from its clients?
17. What changes did the intervention bring about for patients/service clients?
18. Did follow-up reveal positive changes to income, food security, housing quality/security, self-rated quality of life/health measures?
19. What lessons does this program hold for others hoping to achieve the same kind of results in other settings, i.e., to what extent do you think your experience is transferrable to other settings?
20. Is there anything else you would like to add?

Questions for practice management/staff familiar with the nascence and creation of the screening process and income security health promotion and legal services work within SMHAFHT

1. What is the origin, history, catalyst and enablers that led to its creation?
2. Who were the champions for the program within the organization, and how did they win over the sceptics and get buy-in from management to allow the program to launch and continue?
3. How is it funded?
4. How has it evolved over time?
5. What has shaped that process?
6. The SMHAFHT work in this area is quite unusual, and is not widespread in Canada or the rest of the world. What do you think are the contextual factors that have made this kind of intervention come about and evolve here?
7. What threats have there been to the program over time and how were they overcome?
8. How has the program navigated threats to its existence both within and outside the organization?
9. What do you think are the characteristics of an effective ISHP/ legal services provider in the context of primary care?
10. To what extent is the program subject to monitoring and evaluation? Is its impact measured?
11. If so, using what metrics, and if not why not?

12. Has there been any evaluation of patient/client satisfaction? Is there any scope for input into the program's structure or services from its clients?
13. What changes did the intervention bring about for patients/service clients?
14. Did follow-up reveal positive changes to income, food security, housing quality/security, self-rated quality of life/health measures?
15. Can these changes be directly attributable to the intervention?
16. What lessons does this program hold for others hoping to achieve the same kind of results in other settings, i.e., to what extent do you think your experience is transferrable to other settings?

Is there anything else you would like to add?

Paper 3. Physicians' perspectives on responsiveness to poverty in publicly funded primary care in Hong Kong

Preface

The purpose of this paper is to examine why interventions, such as those detailed in the scoping review and the St Michael's Hospital Academic Family Health Team case study, are not found in primary care Hong Kong. This is despite the fact that there are extremely high levels of poverty in the city. Through interviews with family physicians working in settings where they encounter many patients experiencing poverty, the study explores the multiple barriers to primary care responsiveness to poverty, and what physicians try to do anyway to help with the patients' unmet economic needs. By identifying the barriers, facilitators, ways of helping, and avenues for change, the paper offers pointers for the introduction of such interventions not only in Hong Kong, but also in other high-income settings with high levels of inequality.

I conceived the idea for the study, secured personal introductions to potential interviewees, secured ethics approval, and conducted the open-ended, semi-structured interviews to gather the data for the study. These interviews were conducted in person in August 2019 and January 2020. I conducted data analysis in late 2020 and early 2021, and wrote a preliminary version of the study in May 2021. I received a significant amount of feedback and comment from my thesis committee members—Drs. Dunn, Grignon and Vanstone—on how to improve, refine and condense the study. After several rounds of review, revisions from all committee members were incorporated into this final version.

Physicians' perspectives on responsiveness to poverty in publicly funded primary care in Hong Kong

Abstract

Poverty is a significant social determinant of health (SDOH) and, in some high-income countries, health care professionals, mostly in primary care, are actively addressing poverty within their patient population. This qualitative study examines barriers and facilitators to addressing poverty through primary care in Hong Kong. Despite Hong Kong having one of the highest levels of income inequality in the world, there have been very few interventions in the health care setting there to address poverty. Within the context of Hong Kong, the barriers to and facilitators of such interventions, and the ethics and efficiency of intervention, have not been explored. Because of the pivotal role played by primary care physicians in poverty interventions, at the point of first contact with 'the system', eliciting the views of such physicians in Hong Kong who encounter patients experiencing poverty can help determine whether and how poverty interventions could have a place in Hong Kong health care. This qualitative research used purposive sampling was used to recruit 12 participants for face-to-face, open-ended interviews. These key informants were predominantly primary care physicians working in publicly funded outpatient settings in Hong Kong who routinely encountered patients living in poverty. The interviewees described how patients experiencing poverty were usually easily identifiable during the course of the doctor–patient encounter. Participants cited multiple barriers to primary care responsiveness to poverty, at the societal level in terms of the cultural, social and public policy environment, and at the practice and personal level in terms of

the organization of both health care and medical education in the city. They also described what they had already tried to do within their limited scope and discussed what would need to change for them to do more. The identified barriers to, and facilitators of avenues for change offer pointers for the introduction of such interventions into Hong Kong and also into other high-income settings with high levels of inequality. They also point to the contextual factors that can affect the realization of a vision for primary care that goes beyond clinical medicine and encompasses addressing the SDOH.

Introduction

Health inequities arise from the social determinants of health (SDOH), and poverty is acknowledged as one of the largest health determinants in many high-income countries.[1 2] Addressing poverty has traditionally been the domain of the social welfare sector, but, more recently, in countries such as Canada, the United Kingdom (UK) and the United States (US), the health sector has actively engaged in screening for poverty or for its manifestations—food insecurity, housing issues, and precarious work and livelihoods—and then referred patients to social supports or even directly intervened to address those social needs.[3-6]

Social needs interventions in primary care all operate within their own specific context, and these contextual factors—such as the availability of social welfare supports, the way health care is organized, the prevailing public policy environment, and socio-cultural factors—influence their operational attributes and the likelihood of success.

This study considers poverty intervention through primary care within Hong Kong because the city has very high rates of poverty in a context of average opulence (Hong Kong would be classified as high income if it were a country, but has a pre-intervention poverty rate of 26.3%, and a 17.3% poverty rate post cash intervention), yet there are no programs that enable physicians to intervene to address it.[7-9]

It is not known what primary care physicians in Hong Kong consider to be their role in responding to poverty and how they perceive the political, structural and cultural enablers, as well as barriers to addressing it. The objective of this study is to elicit the perspectives of key informants working in publicly funded primary care in Hong Kong on addressing poverty through a primary care setting. By investigating the barriers and facilitators to intervening to address the unmet needs of these patients due to their poverty from the perspective of primary care physicians, this study can also shed light on the role of primary care physicians more generally in addressing poverty within the setting of their work and can offer pointers to how this might be achieved in the context of Hong Kong specifically.

The paper first considers views in the literature about physician involvement in patients' unmet economic needs, goes on to look at the experience of primary care in addressing poverty in other settings, and then describes the Hong Kong context. Next, it presents the study design, including methods used, data collection and data analysis. The findings are presented in four categories: the profile of patients experiencing poverty, barriers to intervention, ways of helping and avenues for change. It is followed by a discussion of the findings and conclusion.

Background

Views on physician involvement in patients' unmet economic needs

At the individual level, health care providers are well-positioned to witness, record and assess the health impact of poverty, but the extent to which they can—or even should—engage in addressing poverty is contested in the literature. Critics voice concerns about the reasonableness of asking physicians to "step out of their lane" of treating illness and into the realm of social justice.[10] One common argument is that the more time physicians reach beyond their current scope of practice, the less time they have to practice medicine.[11] Moreover, there is the risk of unintended consequences such as expectations of help that the physician cannot provide, and there is skepticism over whether such interventions can produce the intended benefits, and whether patients even want such help from physicians.[12-14] Critics also point to the limited scope for physicians to make any systemic changes to address poverty, even when they are engaged in addressing its health consequences.[15]

Voices in support of physician involvement point to measurable health benefits and patient-reported health improvements as a result of such interventions.[16] [17] In fact, physician involvement in work to address poverty is not a novel idea. In both Canada and the US, the community health center (CHC) primary care modality, in existence for decades, includes in its mandate addressing upstream health determinants, and CHCs have been at the forefront of work to address social needs in the primary care setting.[18] [19] There have been calls in the UK to better account for social deprivation in funding models.[20] [21] Addressing unmet social needs in patient populations has also been part of funding reform in the US, in the light of the expansion of accountable care organizations.[22] Whether or not individual physicians consider the social

deprivation of their patients in poverty to be of direct concern to their work, the reality is that it is highly relevant, because, at a minimum, it affects clinical work by increasing physician workload and of course has implications for their patients' health.[23]

Starfield's seminal definition of primary care as "first-contact, continuous, comprehensive, and coordinated care" encapsulates what is unique about the physician–patient relationship that makes it amenable to incorporating social needs interventions.[24] Moreover, the World Health Organization (WHO) makes this vision explicit.[25] WHO defines the primary care concept as "a whole-of-society approach to health and well-being centered on the needs and preferences of individuals, families and communities. It addresses the broader determinants of health and focuses on the comprehensive and interrelated aspects of physical, mental and social health."

Interventions in primary care settings

In some countries, such as Canada, the UK and the US, physician groups have made statements about the importance of addressing the SDOH and in particular the need to address poverty.[26-32] Interventions used in primary care to address patients' unmet economic needs are wide-ranging. There are screening tools, from simple, one-question or 60-second tools, to more complex, multi-question tools that elicit a wide range of socio-demographic and personal circumstance information.[6 33-36] There are many examples of primary care physicians using such tools with their patient populations, notably in Canada, the UK, and the US.[37-40] The associated data collection can be done via the patient's electronic medical record or on paper, and either way can be incorporated into the patient's record.[41 42] The implementation of such interventions is typically context sensitive, and it may be more appropriate to adopt a case-finding approach

rather than routinely screening all patients for all SDOH.[43 44] Beyond screening, primary care physicians have also successfully implemented social welfare referral and signposting services.[45 46] A 2014 randomized controlled trial (RCT) evaluated social needs screening tools, and was the first to show that in-person navigation is associated with reported decreased social needs and improved caregiver-reported child health.[47] Some have gone beyond this to directly intervene, either with practical support, such as an on-site food bank,[48] or through system navigators based inside the medical practice, often working as part of the clinical care team.[49 50]

Studies have shown that interventions targeting income insufficiency have successfully helped patients to obtain more money, such as through fully claiming the social welfare benefits to which they are entitled.[16 51 52] However, experience from numerous countries has shown that although patients may welcome a doctor's intervention in the underlying economic causes of their ill health, feelings of stigma and fear of being reported to social services authorities affect their comfort with sharing sensitive information about their life circumstances.[13 53-59] From the healthcare providers' perspective, such interventions are supported, and have even been shown to reduce the risk of physician burnout.[18 60] They also have been shown to reduce utilization of hospital services.[61-63] At the practice level, there are certain known facilitators of primary care-based interventions that aim to address patients' unmet economic needs. These include a funding mechanism that is supportive of team-based care; staff and management buy-in; the presence of a clinical champion; training in SDOH and how to screen for them; and integration of services to address poverty into clinic workflows.[64-68]

Poverty in Hong Kong

Hong Kong has one of the highest life expectancy rates and lowest infant and maternal mortality rates in the world, with universally accessible hospital care and cultural determinants, such as diet and familial ties, being contributory factors.[69 70] Hong Kong is one of the richest economies in the world, but it also has one of the highest levels of income inequality, and the disparity has worsened over time.[71-73] Of Hong Kong's 7.5 million residents, nearly one in five were living below the poverty line in 2019, with one in three of those aged 65 or over.[74] The poverty measure used by the Hong Kong government is a crude one, defined as less than half of the median income, and does not factor in social deprivation.[75] Long waiting lists for public rental housing (average 6.1 years as of June 2022) and low asset limits to qualify for a place, lead more than 225,000 people (or 110,000 households) to live in privately rented, small subdivided units, with a median floor area per *household* (average number of people: 2.3) of 107.6 square feet, compared with the whole population average of 430.6 square feet per household.[76-79] Such housing is typically substantially more costly per square foot than regular private housing: lodgings the size of a car parking space can cost HK$5,000 (US$641) per month.[8] The social deprivation associated with housing unaffordability in Hong Kong has been shown to negatively impact physical and mental health.[80] There is a high prevalence of precarious employment with high demands, low autonomy and low minimum wage.[81 82] Hong Kong's tax system does not promote redistribution and its social welfare system is limited in scope. [83] The city's pension system is weak, leaving many older adults vulnerable to poverty.[84 85] Government expenditure on health and welfare services as a proportion of GDP is low relative to its peers: 14.4% in the 2018/19 budget, for example, versus 22.3% in Japan (2013 data), and an average of 20% in Organisation for Economic Cooperation and Development countries (2021 data).[85 86] Non-

governmental organizations (NGOs) administer 90% of government spending on welfare services, making access to services complicated to navigate.[87] The main source of welfare support directly administered by the government in Hong Kong is the means-tested Comprehensive Social Security Assistance (CSSA), for those who are unemployed or unable to work, with payment rates far below the official poverty line.[87] Almost a quarter of those living in poverty in Hong Kong are working poor. In 2016, approximately 40% of the 308,549 working poor households had an income below the threshold for CSSA eligibility but only 4.5% of those eligible claimed it.[85] Stigma associated with being a CSSA recipient and difficulties navigating its complexities are posited reasons for this low uptake.[8 85] None of the four main poverty alleviation measures—CSSA, public rental housing, Student Allowance and the Community Care Fund—are effective at either directly or indirectly reducing child poverty.[88]

Poverty—whether measured by the single dimension of absolute income level, or in terms of relative deprivation—is adversely affecting the health-related quality of life of Hong Kong's poorest people.[89 90] Government surveys of self-rated health have shown a direct relationship with income.[91] Studies suggest that social deprivation in the Hong Kong context is significantly associated with poor physical and mental health, and is independently associated with higher levels of obesity and poorer glucose tolerance.[75 92-94] It can be said that poverty and ill health in Hong Kong operate in a vicious cycle, in particular adversely affecting the physical and mental health of Hong Kong's older adults, and also affecting their access to health care.[80 95-97]

Health care utilization, particularly at the primary care level, is dominated by private fee-for-service practitioners, and is inequitable, according to socioeconomic status, with those who have

inadequate income and experience social deprivation less likely to access primary care at all, and less likely to visit private primary care physicians in particular.[72 98] While private sector providers account for 70% of primary care visits, the remainder is mostly provided by 73 publicly funded general outpatient department (GOPD) clinics run by the Hospital Authority (HA).[99 100] In the past decade, there have been numerous attempts to shift the burden of primary health care even further from the public to the private sector.[101-103] However, the HA's GOPD clinics still provide the bulk of primary care for patients who do not directly access the private sector, including low-income patients.[104]

Despite the prevalence of poverty and low income in Hong Kong, the health sector has not engaged with this issue in the way it has in other countries. There are two likely explanations for this, to do with the social context of Hong Kong. A highly ethnically homogenous society, Hong Kong's traditional Chinese culture favors self-reliance and attaches stigma to seeking social welfare. In turn, this social context influences a policy agenda that does not aim to address the city's widespread poverty.[105] Historically, poverty was never high on the government's policy agenda and this has continued into the post-colonial era since the handover to Chinese rule in 1997. It was only in 2012 that the moribund Commission on Poverty was reinstated, and the government began to produce annual reports on the poverty situation in the city. Until 2013, the city did not even have an official poverty line.

Given Hong Kong's very high levels of poverty and low uptake of social welfare provisions, coupled with income-related and health inequity, and a public health system constantly and increasingly under strain, interventions to address poverty, that can also reduce demand for

publicly funded healthcare services, could arguably kill two birds with one stone. The use of interventions already being developed and deployed in other countries and described above—the use of screening tools, social welfare referral and direct interventions—could play a meaningful role in this. Why such interventions are not currently being used is worthy of exploration.

Methods

Study Design

This is a qualitative study using interpretive description methodology and key informant interviews. Interpretive description is a research methodology from nursing research that is an "analytical, indictive approach designed to create ways of understanding human health."[106] It is appropriate for this investigation of primary care providers' attitudes toward and views of poverty among their patients because of its emphasis on the "discovery of recurrent patterns or shared realities" within the complex, constructed and contextual nature of human experience.[107]

Sampling and Recruitment

Following the purposive, opportunistic sampling strategy recommended by interpretive description, participants were recruited through a combination of purposive and convenience sampling, starting with personal contacts to obtain referrals. The sampling process was opportunistic, with referrals from one interviewee to another, on the basis that they knew who would find the research project of interest. Personal contacts introduced the field researcher (JP) to the first three interviewees, who were not only doctors practicing in GOPD clinics, but were also academics, who quickly grasped the purpose and methods of the research, and who then

introduced other suitable participants outside of academia but also working in GOPD clinics. They in turn introduced the remaining participants.

The chosen sampling method supported data collection from key informants who were especially knowledgeable in the topic of this research, and who were interested in examining the political, structural and cultural aspects of the phenomenon under study. In short, they cared about health care for socially disadvantaged groups in Hong Kong, noticed that poverty affected the health of their patients, and were interested in discussing these phenomena in their socio-cultural context. There were likely to be few primary health care doctors with a strong knowledge of SDOH in Hong Kong, and the number of people fitting the desired profile for participation was expected to be quite low.

The initial inclusion criteria were that the participant was a practicing physician, but this was subsequently widened to allow inclusion of other primary care professionals such as nurses, non-practicing medical academics who were deeply familiar with the topic and setting and whose insights into particular aspects of primary care were deemed uniquely valuable. The recruitment process explicitly aimed to seek out key informants who were knowledgeable about social inequality in Hong Kong, and the potential role of primary health care in addressing it. Physicians working in GOPD clinics were especially sought out: the role of the GOPD clinics in providing primary care for those who cannot afford to directly access private health care, and their focus on older adults, low-income individuals, and patients with chronic diseases made them a highly suitable focus site for this research.

Potential interviewees received an email detailing the researcher's background, academic affiliation, and reasons for conducting the study. In total, 15 potential interviewees were approached, 12 accepted and were interviewed, while three accepted but were unavailable during the period in which the interviews were being conducted. The target number of interviewees was undecided at the start of the study. Consistent with the interpretive description methodology, the focus was on obtaining a deep understanding of the perspectives of participants.[78]

Ethical approval was obtained from the McMaster Research Ethics Board (MREB#2140) and all participants provided informed consent.

Data Collection

In August 2019 and January 2020, 12 in-person, semi-structured interviews were conducted by one author (JP) in English, at a time and venue of the participant's choice. Every participant was interviewed once, except for one who was interviewed twice because he also participated during an interview with a colleague at their request, in case they ran into problems expressing themselves in English. The duration of each interview was 60 to 90 minutes. During the recruitment process, the participants received a list of intended questions and discussions, with the caveat that these were prompts for an open-ended discussion. During the interview, participants were also shown a number of poverty screening tools from family practices in Toronto, Canada,[6] and the Health Leads Social Needs Screening Toolkit,[36] and asked to comment on whether such tools could be adapted for use in Hong Kong.

Interviews were audio-recorded and transcribed, and transcripts were then checked against the audio files for accuracy. Each participant received a copy of their interview transcript and was given one month to edit, redact or add to the transcript, or to withdraw from the study altogether. None of the participants withdrew, and two made minor edits to their transcript. The interviewer kept a journal in which she recorded process memos and engaged in reflection.

Analysis

Coding was approached inductively and derived from the data, in line with the interpretive description methodology. The analysis began with an immersive exploration of the interview transcripts, then open coding, and subsequent identification of broad patterns and themes. The construction of themes was deliberately tentative, and remained so throughout the process of data analysis, and coding was used to assemble emerging themes and ideas rather than trying to fit the data into pre-determined categories. The analytic strategy borrowed from the constant comparative analysis process more commonly associated with grounded theory, an established method of analysis used within interpretive descriptive research: immersion in the data; devising an initial template for themes; organizing the data according to those themes; and then looking for points of comparison and contrast within and between participants.[78 108]

Results

The participants comprised 10 current (at the time of their interviews) and former public sector primary care physicians, and two other participants whose experience was highly relevant to the area of investigation (Table 1).

Table 1. Profile of participants

Profession	
Physician	10
Nurse	1
Psychosocial counsellor	1
Place of work*	
General Outpatient Department clinic	8
Non-governmental organization	2
Hospital	2
University	4
Location of medical training	
Hong Kong	11
Canada	1

*Some participants had more than one workplace

Analysis identified four main themes: 1) Primary care physicians are able to identify patients experiencing poverty. 2) Although they face considerable practical, cultural and systemic barriers to addressing patients' unmet economic needs, that does not prevent them from trying, within the limitations of their work, to 3) seek ways of helping their patients, 4) Participants also talked about potential facilitators of change to enable them to do more for their patients experiencing poverty.

Identifying patients experiencing poverty

The profile of patients reported by participants across the GOPD clinics was quite consistent, and participants reported that the majority of patients were experiencing poverty. A physician

knows in advance which patients are CSSA recipients because it is indicated in their patient record.

When asked whether they actively looked for indicators of their patient's socioeconomic status, participants reported subconsciously or deliberately taking in signs that might denote a patient's socioeconomic circumstances within the first few moments of a six-minute doctor–patient encounter, including dress, demeanor, facial expression and mood:

> *"As part of our medical training, we are also trained to look at how people dress, how they behave… Maybe the primary intent wasn't to see whether the person is poor, but it's just the impression part of our diagnostic process." [DR08]*

The doctors also sometimes wove questions about their patients' circumstances into the consultation conversation. However, this was not a routine inquiry, and they did not take this step if the patient's presenting problem was straightforward, even if there was some time to spare after dealing with the problem. Doctors were more likely to ask whether a patient's socioeconomic circumstances could affect their ability to access needed care, for example for services that entailed months- or even years-long waits in the public system, but which could be obtained quickly by paying for private care.

Participants reported that many of their patients presented with a range of chronic illnesses, as well as mental-health-related issues, with patients frequently reporting being under stress, and

showing signs of depression and anxiety. The participants attributed their patients' poor mental health to low income and low levels of agency in work, and especially to overcrowded and/or substandard living conditions:

> *"Most of our patients are in public housing, so I think that sometimes causes a lot of the mental-health-related issues, because of the over-crowding [which] causes a lot of arguments. They have no space, basically, no space for their mind. It's so noisy* [pause] *so it's quite an impact on their well-being." [Dr02]*

Two other common signs that a patient may be living in poverty emerged from the interviews: a high degree of non-compliance to treatment for chronic illnesses, and poor diet. Participants explained that poor disease management was often related to financial and social problems, and poor self-monitoring of chronic conditions was another indicator of poverty as patients might not be able to afford the equipment and supplies for self-monitoring. Poor diet was another tell-tale sign of inadequate income, according to participants. Patients might not have enough money to buy nutritious food, and patients who lived in subdivided apartments might not even have access to cooking facilities.

> *"They don't even have enough space to breathe. Forget about cooking, no way, there's no kitchen. Because of poverty, they live on junk food, which is less expensive… The patients get very demoralized. They try their best, I think that's the problem of managing chronic diseases, particularly in urban*

areas in the Hong Kong context, there's the finance side, the poverty."

[Dr03]

Having identified patients with insufficient income, and seeing its a negative impact on their health, doctors are faced with numerous barriers should they want to address this.

Barriers to intervention

Participants described multiple barriers to intervening to address their patients' unmet economic needs. Specifically, they identified the social, political and cultural context of Hong Kong; doctors' background and medical education; and the way in which publicly funded health care in Hong Kong is organized.

Political, social and cultural context of Hong Kong

Participants highlighted the social context in which they worked as a foundational barrier to taking action. SDOH are almost entirely absent from the Hong Kong government's health policy agenda, and social welfare policy has largely deflected provision of support for those in economic hardship away from the government. Participants said that physician hesitancy to screen for poverty may be related to their perception that it was unethical to screen a patient for something the physician could not treat:

> *"Our training is that if you open up something, then you must be sure that you know how to handle it right. If you are not going to offer help, then why you are opening up? So I think that's another issue." [Dr 09]*

Participants noted that in traditional Chinese culture, disclosing financial hardship to those outside the family was very shameful:

> *"In Chinese culture, it is very difficult for them to tell other people they are in poverty; if you say that you are in poverty, it is a shame, especially for the elderly…If they have to get a subsidy from the government, other people will look down upon them, and blame them as being useless because they cannot earn their own living, and must be a very bad guy when they were young, because they couldn't save money for their own life. This is most people's thinking." [Dr04]*

This attitude pervades the doctor–patient encounter, reinforcing the power distance between the two:

> *"For those traditional Chinese, they are not willing to talk about this issue, and of course some doctors may uneasy talking about this also because of the fear that that may embarrass or offend their patients." [Dr09]*

Stigmatizing social attitudes around poverty temper expectations of doctors, even in terms of what clinical care they offer:

> *"It's almost written in the structure of Hong Kong that if you want to afford better care, go to private hospitals, etc., you need to work, you need to make the money so you can climb that social ladder to get there, and those are the associated benefits. You see a lot of patients don't feel like they can have anything outside of what they deemed will be their social rank, or what they can afford." [Dr05]*

Doctors' background and medical education

The doctors interviewed for this study all expressed great empathy for their patients, especially those experiencing poverty, but they also pointed out that their view was not the dominant one in the profession. Participants noted that the class background of most Hong Kong doctors did not prepare them well to take notice of a patient's economic circumstances. They explained that a lack of lived experience could make it difficult for doctors to demonstrate empathy for patients experiencing poverty. These trends were worsening in Hong Kong, participants said, with young people from affluent families increasingly favored in the highly competitive medical school entry process. Lived experience knowledge gaps were not filled during medical training. Participants recalled very limited coverage of the social determinants of health during their own medical education, and this had not changed for younger generations of doctors:

> *"*[Medical students] *think it's not related because the medical curriculum doesn't emphasize any of these issues as being important, or even look at the social determinants that are affecting their patients' health." [Dr05]*

Organization of publicly funded health care

Participants also pointed to the physical and organizational barriers of their working environment. Space is at a premium: often the waiting area is too full for all waiting patients to sit down, and all consultation rooms are in active use. Finding the space for an additional intervention to be conducted in private could be impossible.

A typical doctor working in a GOPD clinic routinely sees 30 to 40 patients in one half-day session, with the standard consultation lasting only six minutes. In such a short time, there is no scope for screening within the doctor–patient encounter. Participants described any tendency to dedicate more time to a particular patient as being knocked out of them by the clinic system, with its focus on efficient throughput and smooth productivity:

> *"It's just like a factory. People are working like machines…We are not focusing on the quality, because the need is so huge, and the government and political parties just want to cut the waiting time. They don't want to see good quality care. That's the main problem." [Dr10]*

The system is such that it penalizes doctors who stray from the standard operating procedures:

> *"Even if you are good-hearted doctor who would like to talk one or two minutes more to the patient, actually your nurses and your colleagues won't allow that, because in our concept of patient care, that is not counted. The*

> *service will excel in efficiency if we can deal with a lot of patients, but then we don't care about the background of the patients, actually, we don't care who they are. That's the tragedy of the system." [Dr12]*

Beyond these practical constraints, participants anticipated that many patients would be reticent to provide this information. This was exacerbated by the random allocation of doctors to patients at each consultation which prevented the building of the trust and rapport needed to broach sensitive and stigmatized topics such as poverty.

For GOPD clinics nested within a hospital, doctors have access to on-site medical social workers, who can help patients navigate their way to available supports, but for standalone GOPDs, there is no mechanism for them to liaise with the social welfare sector:

> *"We don't have some direct channel to refer a patient to the social welfare sector. We might talk to him,* [saying] *'you can go to the Social Welfare Department,' but we don't have the direct collaboration with* [the Department]. *We don't communicate. We don't have dialogue. If we can achieve the direct referral, that's already an achievement, but… we might not be very ready to do it in the medical sector."[Dr06]*

Ways of helping

Despite all the limitations on their ability to help patients address their economic needs, most respondents reported various ways in which they tried to help patients. These included trying to make special allowances for patients requesting supplies of non-essential medications, being as generous as possible when signing off on CSSA applications, including providing medical certification of inability to work, and referral to external sources of support.

One physician described a scenario in which patients who came for regular follow-up appointments for a chronic condition might request other medicines for minor ailments that were available for sale over the counter, but which they could obtain free from the clinic.

> *"We're not really obliged to give them those* [other medicines]*, but if I'm talking to a patient for* [long enough to] *get to their social background, I usually don't want to ruin the sense that I'm helping them. So if they later come up with these requests, I'm usually more lenient."[Dr08]*

The most direct way that doctors help patients experiencing poverty access economic resources is through their role in the CSSA application process.[109] Public sector doctors hold a great deal of sway over the approval of CSSA applications and are in effect the gatekeepers to a wide range of CSSA benefits. Apart from CSSA, Hong Kong has a complex web of NGOs that contribute to the city's social safety net. There is no unified system for referral to such supports. Although the Social Welfare Department lists the contact information of NGOs, the list is

poorly maintained and not user-friendly. Some participants described their own clinic's efforts to connect patients to NGOs. They noted that many of the NGOs were still medically focused, subsidizing the cost of certain medications or private medical treatment, for example, rather than economic needs in general.

What was striking in the interviews was that even within the limitations of their work setting, all the participants appeared to be trying in whatever ways they could to help their patients.

Avenues for change

What was striking in the interviews was that even within the limitations of their work setting, all the participants appeared to be trying in whatever ways they could to help their patients. Participants also identified three areas as potential avenues for change: 1) time and tools for poverty screening; 2) enhanced medical education; and 3) formation of a new health services delivery modality.

In terms of the time and tools to screen for poverty, even a few extra minutes per patient would help create space for the doctor to explore the patient's social needs, according to participants. None of the participants had seen a poverty screening tool before, and the response to the examples of screening tools from other countries was very positive. However, several issues were raised as to their practicality in the Hong Kong setting, including education for the doctor

on how to screen, the feasibility of obtaining actionable information, and availability of resources to administer it.

> *"I think if there is simple screening and in a form that has a very clear idea of why it is used, and then we have some education for the doctor to know what they can do about it after knowing the results, then it will be helpful."*
> *[Dr12]*

Second, medical education was identified by several participants as one of the possible entry points for improving physicians' responsiveness to poverty. The medical profession would also be better equipped to recognize and address poverty if there was more diversity in the medical student body. Meanwhile, experiential learning could help students develop a deeper understanding of how poverty and other social issues affect patients, but participants remarked that this would only be effective as part of the core curriculum, not an avoidable elective.

> *"I think you need to do something within the curriculum, a clinical course integrated with some social components, because then* [the medical students] *can see the reality and they cannot make the excuse that this is not related to me."*
> *[Dr02]*

Finally, some participants thought the formation of District Health Centres, a new health services delivery modality, in 2017, could provide a forum for social needs interventions. As of

July 2021, two DHCs had opened and there were 13 more in the pipeline across Hong Kong.[110] The scope of services comprises health promotion, health assessment, chronic disease management and community rehabilitation, and the key features of the DHC model include community- and district-based services, public–private partnership, outreach and medical–social collaboration. It is the latter feature that offers scope for primary care-based interventions to address poverty.

> *"*[The DHC] *has to deliver certain things, but within the framework there is quite a bit of flexibility. The second thing is there's a lot of services and a care coordinator. Let's say I'm a GP in the private sector, I refer a patient to the DHC care coordinator for assessment, and then the care coordinator can initiate a social worker intervention." [Dr03]*

Discussion

The participants in this study provided valuable insights into why they largely did not address the unmet economic needs of their patients. The push to shift more primary care from the public to the private sector raises concerns about the capacity of the public system to manage even the clinical demands placed on it. Against this backdrop, it is not surprising that participants cited service efficiency as a major priority for management. It follows that this is therefore a barrier to gaining their buy-in for involvement in patients' care beyond clinical services. Hong Kong does not have any formal organization of physicians, such as the poverty concern groups that exist in

other countries, nor have its professional bodies taken up the cause of poverty, in contrast to their counterparts in, for example, Canada, the UK or the US.[29 30 110 111] This reinforces what participants said about the culture of the Hong Kong medical profession as a reason why poverty does not appear to be in the collective consciousness of doctors in the city.

This study also showed that doctors working in publicly funded primary care in Hong Kong experience extremely limited consultation times. They are constrained by the rigid organization of services, leaving them with little or no time to address non-clinical matters. Addressing these constraints would require a non-trivial investment of additional funding to add minutes to the consultation time. A lack of time has been identified in other settings as a major constraint to good care, and is associated with lower physician job satisfaction, especially when dealing with patients with complex needs.[112] Consultation lengths of between 10 and 20 minutes are the norm in many high-income countries.[113] The participants also reported that there were limited options for referral to social supports. While they described their feelings of caring about their patients, their ability to assist with poverty was constrained by these organizational and structural features. The expressed wish to "do more" bodes well for positive change, given that research in other settings indicates such interventions can only work when the doctors themselves are convinced of their utility and are willing to incorporate them into their clinical practice.[67 114] Even considering the government support that is available in the form of CSSA, the participants reflected that very few working poor people who were eligible for CSSA claimed it, and also described the stigma attached to being a CSSA recipient especially among older adults.

It is clear that, unlike in other medical education systems, education in the social determinants of health is a very minor part of medical education in Hong Kong, and there is definitely more scope to increase doctors' awareness of social issues through more SDOH content in the undergraduate medical school curriculum, as well as through more poverty and health training for those specializing in family medicine, and through continuing medical education modules on welfare service referrals. Experiential education, a widely recognized strategy, was also alluded to as a potential point of entry for Hong Kong.[115] The barriers that the doctors identified—such as a lack of lived experience, a limited understanding of patients' economic circumstances, and poor awareness of what steps they as providers could take to help—have all been observed in other settings, where efforts were made to promote diversity in the student body and enable more students from low-income backgrounds to enter medical school, and to offer more continuing medical education in this area.[116] Knowledge of these barriers was the first step toward overcoming them.[117]

The insights of the study participants showed what negative effect Hong Kong society's prevailing cultural norms of self-reliance and stigma around poverty might have on the potential efficacy—and appropriateness—of such interventions. Participants described ethical and cultural barriers related to the stigmatization of poverty in Hong Kong and traditional Chinese cultures. While some of these norms are specific to the Hong Kong context, they also offer pointers to the need for cultural sensitivity in implementation of this type of intervention in other settings too. Whether or not patients would welcome such interventions was beyond the scope of this study, but other jurisdictions' experience has shown that even when patients disclosed economic

hardship during screening, they did not always want help, or did not see it as being within the scope of what they expected from primary care.[14]

Adapting a screening tool from one place to another is clearly not simply a matter of translation: the Hong Kong doctors who participated in this study revealed that, beyond language, other issues must be addressed, including the practical feasibility from a space and resources point of view, acceptability to both sides of the patient–doctor dyad, and whether or not it could be done in an ethical way, i.e., resulting in actionable information for doctors, given Hong Kong's relatively limited social welfare provision.

Whether or not the medical system is the appropriate system of care to address SDOH remains contested, even in settings like the US where SDOH interventions in primary care are more common. The controversies around this vision are an important part of a wider debate about whether social and medical care should be more closely integrated, and whether or not primary care can or should extend beyond clinical care.

However, many argue for the possibilities of primary health care, and this paper has shown through the Hong Kong case study some of the barriers and contextual factors that affect the ability of that vision to be realized.

In this regard, even if the physicians interviewed were in a minority among their peers, they were also part of a global community of counterparts in other countries who also care about the issues of poverty and social justice as they intersect with medicine. Favorable public policy is

undoubtedly important, but doctors can and do work within real-life limitations to help their patients address their unmet economic needs. Many primary care-based interventions in western countries have emerged from grassroots-level initiatives, which then expanded or evolved over time through many cycles of political leadership and governments with see-sawing social policies.[118-120] The tools that some of these counterparts use, for example to screen for poverty, were well received by participants, and they were largely positive about their potential adaptation to the Hong Kong setting. This shows that even between wildly different contexts, there is scope for meaningful sharing of experiences and resources.

In terms of public policy that could be more supportive of such efforts in Hong Kong, it remains to be seen how two intertwined societal forces—growing rates of poverty, especially among the elderly in a rapidly aging population, and health services demand that threatens to become unsustainable—play out. Arguably, the government cannot ignore them forever, and this may in time open up a policy window for interventions to address poverty and improve population health. However, it is difficult to see a clear path for this. Hong Kong's governance and political environment has undergone massive change in the last two years, including the removal of political opposition parties, a clampdown on the media and civil society, and the introduction of a draconian national security law. The sweeping powers under this law have made it not only more difficult, but also potentially dangerous, to publicly criticize the government. Viewed from the vantage point of late 2021, it is hard to see whether it is more or less likely for there to be a window for any kind of pro-poor public policy. Also, in the absence of any policy change, the question remains whether the efforts of individual doctors working within a rigid system will become more significant in future, or whether space for them to do so will shrink, as people shy

away from doing anything that might attract unwanted attention, either from the government or from their own management.

Strengths and limitations

To our knowledge, this is the first study to focus on doctors working in publicly funded primary care in Hong Kong that seeks to examine their attitudes to poverty as it relates to their professional practice. The findings of this study contribute to two main areas of scholarship: the health impact of poverty in Hong Kong, and the role of primary care physicians in helping patients to address their unmet economic needs. In the former area, for the first time, it sheds light on how primary care physicians encounter, perceive and react to their patients experiencing poverty. It shows how they see the embodiment of poverty and its health effects in their patients. It complements the existing scholarship investigating people's self-reported health, and provides insights into how anti-poverty interventions used in primary care in other settings might be introduced into Hong Kong. It also shows that in spite of the obstacles to doing so, and a medical culture and training that does not promote the addressing of the SDOH, some physicians will still try to find ways to help ameliorate the circumstances of those of their patients that experience poverty. Regarding the role of primary care physicians, this study highlights that interventions that aim to fulfil the true potential of primary care, not only as a point of first contact, but also as a patients' medical home, and as an entry point for disease prevention and health promotion, will face severe headwinds in a system that is not patient-centered. It highlights the need for cultural sensitivity and awareness of the socio-cultural context when considering new interventions to address poverty, in particular in terms of the

stigma associated with seeking social welfare assistance, and the obstacles presented by a complex and difficult-to-navigate social welfare system.

One strength of this study is that the participants, confident that their identity would be protected in any published results of the study, spoke freely and frankly. They were all interested in the topic, and supportive of the research, and were generous with their time and thoughts on the subject. Both rounds of interviews were conducted at a time when Hong Kong was experiencing widespread pro-democracy protests and civil unrest. Against this backdrop, the issues of social inequity and social justice that this research covered were very topical and at the front of the mind of many Hong Kong people, the participants included. We believe this enhanced the quality of the interviews.

The second round of interviews was completed just before the COVID-19 epidemic began in the city. We had originally intended to do a third round of interviews in April 2020, but travel restrictions and social distancing rules related to COVID-19 made that impossible. Subsequently, on July 1, 2020, the Law of the People's Republic of China on Safeguarding National Security in the Hong Kong Special Administrative Region (NSL) was passed. This law had an immediate chilling effect on public criticism of the government, because the definitions of what constitutes transgression of the law are vague and wide in scope.

In conducting textual analysis of the interview transcripts, we were mindful of comments from participants that related to the protest movement, and those that were critical of the Hong Kong government. We decided not to publish direct quotes that could possibly be construed as

strongly critical of the government, although the comments were included in the analysis. Given the prevailing political climate in Hong Kong, we also believe that even if it were not for the current restrictions imposed by the COVID-19 pandemic, it would have been very difficult to secure interviews of this nature after the NSL was passed. As such, the research represents a unique and valuable snapshot of the thoughts and opinions of a group of doctors concerned about social justice issues in Hong Kong at a pivotal moment in the city's development. The decision to conduct the interviews in English meant that the interviewees could not use their mother tongue of Cantonese, making it more difficult for them to freely express themselves. This may have resulted in some participants who were not comfortable communicating in English from being missed. However, English is one of the city's official languages, all 12 participants in this study are highly educated and their medical education was in English, and they were very comfortable speaking in their second language.

Conclusion

This study explores what some Hong Kong public system primary care physicians consider to be their role in responding to poverty and how they perceive the political, structural and cultural barriers to addressing it. Eliciting the views of doctors in Hong Kong who encountered patients experiencing poverty can shed light on the barriers and facilitators that would affect such interventions in the socio-cultural context of Hong Kong. This illuminates the role of context on an intervention and, by extension, the extent to which primary care-based income interventions can be universally applicable.

Acknowledgements. The authors acknowledge the generous contribution of the interviewees to this research, without whom it would not have been possible.

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Appendix

Interview Questions

Barriers to primary care-based income interventions in Hong Kong

Jane Parry, (PhD student)
(Department of Health, Aging and Society – McMaster University)

Information about these interview questions: This gives you an idea what I would like to learn about barriers to primary care-based income interventions in Hong Kong. Interviews will be one-to-one and will be open-ended (not just "yes or no" answers). Because of this, the exact wording may change a little. Sometimes I will use other short questions to make sure I understand what you told me or if I need more information when we are talking such as: "*So, you are saying that …?*), to get more information ("*Please tell me more?"),* or to learn what you think or feel about something ("*Why do you think that is…?").*

1. **Can you identify patients living in poverty, and if so, do you try to do so?**
2. **Do you see a direct health impact from poverty?**
3. **Do you talk to their patients about their socioeconomic circumstances?**
4. **Do you try to address issues relating poverty (e.g., refer to social welfare services or other sources of support)?**
5. **Do you consider they have a role in addressing social determinants of health among your patient population?**
6. **What do you think are the contextual conditions (policy, structural, professional cultural) to doctors addressing the SDOH in Hong Kong?**
7. **Why don't doctors in Hong Kong intervene in their patient's social and economic circumstance? Is it also because of their training, social status, lack of interest? perceived powerlessness? cultural factors around stigma and poverty? lack of tools for screening patients?**
8. **Would you welcome a poverty screening tool?**
9. **Here are some examples pf screening tools in use elsewhere in the world. [Present inf-graphic examples of screening tools]. What do you think of these?**
10. **Is there something important we forgot? Is there anything else you think I need to know about poverty and health in Hong Kong?**

END

Conclusion

This chapter briefly summarizes the findings of each paper, points to cross-cutting themes, discusses the implications of the research findings for different stakeholder groups, points to some unanswered questions, and suggests directions for future research.

Summary of findings

The three papers presented in this doctoral thesis all examine primary care-based interventions to address unmet economic needs, from three vantage points. The first paper, *Primary care-based interventions to address the financial needs of patients experiencing poverty: a scoping review of the literature*, is a high-level, broad-sweeping examination of interventions in use in high-income countries. This scoping review provides a unique overview of income interventions across different primary care settings, with a specific focus on interventions targeting economic needs. It scans the whole spectrum of interventions, from screening patients, and collecting and managing the data generated in the process, to referring patients to external services, and directly intervening to address patients' needs. It maps the tools in use to identify and address patients' economic needs, describes the key types of primary care-based interventions, and examines barriers and facilitators to successful implementation. The key findings were that interventions to address patients' financial needs operate at all levels, from passive sociodemographic data collection upon patient registration, through referral to external services, to direct intervention in addressing patients' income needs. Tools and processes to identify and address patients' economic social needs range from those tailored to individual health practices, or addressing one specific dimension of need, to wide-ranging protocols. Measuring the success of interventions has proven challenging, and the decision to undertake this work requires courage on the part of

health care providers because it can be difficult, time-consuming and complex. However, the study found that interventions are often appreciated by patients, even when the scope of action available to health care providers is quite narrow.

In contrast to the broad-based perspective of the scoping review, the second paper, *Income security health promotion: addressing patients' unmet income needs in a Toronto family practice, a qualitative study*, is focused at the micro level and focuses on one example of a primary care-based income intervention. It examines this intervention in detail, from the perspective of those responsible for creating it, managing it, referring patients to it, and delivering it. It explores the origins, context and functioning of an income security health promotion service; investigates the external forces and contextual factors that shaped the origin and development of the program; examines the desirable skill set for those working in this role, and its function within the circle of care; and offers important insights into how to create and sustain such a program in other primary care settings. The study revealed the origins of the service, as part of a new and well-resourced family practice, with a team of clinicians well-versed in the social determinants of health and with a strong social justice orientation. It unpacked the required skill set for an income security health promoter, and the importance of assimilating the role into the circle of care. While there were specific contextual factors related to the institutional culture, history and funding of the service, the experience in this primary care practice also offers important insights into how to create and sustain such a program in other primary care settings, such as the need for management support, a practice champion, dedicated staff roles, and stable funding.

The third and final paper takes the findings of the first two—i) there is a diversity of primary care-based interventions to address unmet economic needs, and they can be found in many settings where there are patients experiencing poverty; and ii) such a program can be sustained and be successful over an extended period of time—and asks why, in a wealthy city where there are very high levels of poverty, are such interventions non-existent? The paper, *Physicians' perspectives on responsiveness to poverty in publicly funded primary care in Hong Kong*, seeks to answer this question by soliciting the perspectives of family physicians working in settings where they encounter many patients experiencing poverty. The study explores the multiple barriers to primary care responsiveness to poverty in the Hong Kong context, and what, despite these barriers, physicians try to do to help with the patients' unmet economic needs. By identifying the barriers, ways of helping and avenues for change, the paper offers pointers for the introduction of such interventions not only into Hong Kong, but also into other high-income settings with high levels of inequality.

Each in their own way, the three papers reveal findings and perspectives that add to our understanding of this growing field of interventions. Although the papers each have standalone findings, there are also common threads as well as points of contrast. Common threads include the importance of being able to identify patients experiencing poverty, the role of structural enablers and barriers to intervention, and the importance of motivated team members, as well as management support. In this section, I look at the main findings when the papers are taken together, and summarize them under three broad themes: people, processes, and policies and systems.

People

The interventions covered in the scoping review and the study on the St. Michael's Hospital Academic Family Health Team Income Security Health Promotion (ISHP) service all exist within institutional frameworks, but there are six aspects of this work that pertain specifically to the people involved.

First, it became clear in the course of conducting this research that while institutional support is very important, so is the presence of a champion who can advocate with colleagues for what is often a new and additional layer of work. This factor came up in the scoping review in studies from the US on community health centers.[1] This was also apparent in the St. Michael's study, where there was a clearly identifiable practice champion behind the establishment of the ISHP service. Even in this Canadian context, where there were systemic factors that made the ISHP service possible, it took a practice champion to bring it into being. This introduction of such interventions is made considerably easier if there is a group of like-minded people, and especially so if their interest in social justice issues or social determinants of health (SDOH) is formalized, such as through the existence of an SDOH committee, as is the case for the SMHAFHT. When interviewing the participants in Hong Kong, it also became apparent that if, for example, a clinic was to attempt to introduce such an intervention, it would need to be championed by a staff member who was willing to take on the extra work of promoting the idea among colleagues first.

A second and related aspect is organizational culture, and the extent to which this enables people-centered care. Even a simple, 60-second survey, or a two-question screening for food insecurity, let alone a more complex intervention, can only be included in the process of care if there is a patient-centered culture that looks beyond clinical issues to embrace a patient's livelihood and social needs.[2-4] Most participants in the St. Michael's study mentioned the ethos of patient-centered care as a reason why the ISHP service existed and continued to be well used. In contrast, the Hong Kong study participants frequently mentioned the rigidity of the system for managing the large daily throughput of patients as an obstacle to patient-centered care.

Third, some of the most successful interventions have not relied on family physicians to do the work, but instead have set up easy referral mechanisms to another team member who performed this role. In the scoping review, it became apparent that this role is known by a variety of names—income security health promoter (used in the SMHAFHT), link worker, community-links practitioner or welfare rights officer—describing a person who extends the capacity of a primary care practice to address patients' unmet economic needs [5-8] The advantage of this being carved out as a separate role, apart from increasing capacity, is that it can bring in a person with a specific skill set most suited to the role. It can also make explicit the time, expertise and funding required to do this work in earnest. The scoping review found that this is, however, a challenging role, often encountering patients under acute financial stress, and constrained by the limited availability of remedies to the patients' financial problems.[9] [10] The St. Michael's study reinforced this perception of the high demands on staff in this role.

Fourth, the lived experience and medical training of family physicians and other related health care providers are also influential, both in terms of motivation to do such work, and the ability to put themselves in the shoes of their patients and identify a need to intervene. In all three studies, the typically privileged social class background of physicians was highlighted as a barrier to understanding the needs of patients experiencing poverty.[11] [12] Medical training is another important aspect of this work that again came out in all three papers. Often, physicians receive little or no training in SDOH through the medical education system, let alone on how they can tackle patients' unmet economic needs in their role as clinicians. In the Hong Kong study, participants noted that there was little or no education on SDOH, which in Canada is included in the medical training curriculum.[13]

Fifth, whether or not physicians and other health care providers are motivated to do this work, the other side of the coin is whether their patients welcome it, want it or avail themselves of the services offered. The scoping review revealed that patients may not want to disclose their unmet economic needs in the context of a family physician consultation, and when they do, they may not expect or even welcome intervention.[14] The Hong Kong study found that patients have relatively low expectations of what a general outpatient department (GOPD) doctor can do for them. The St. Michael's study, on the other hand, found that patients offered an ISHP service were often surprised, but ultimately welcomed the offer and took it up. In all three studies, trust was a key element. Broaching topics such as income insufficiency, food insecurity or inadequate housing requires a certain level of trust between patient and provider; this can affect uptake and potentially jeopardize the clinical relationship. With no continuity of care by the same provider over time, as is the case in Hong Kong's GOPD clinics, it is challenging to establish that trust.

Finally, none of these actors exist in isolation, and the surrounding culture of their society, and its social norms, also plays a role. This was identified in the research conducted in Hong Kong, for example, where the stigma surrounding poverty was highlighted by participants. Similarly, in the scoping review, one concern raised was fear of reporting food insecurity to a physician in case this triggered a report to a social welfare agency for child neglect.[15] When questioned on this, some of the St. Michael's study participants noted that such fears may be mediated by the underlying trust between patient and care provider.

Processes

Any intervention in primary care is affected by the processes of primary care delivery. Looking across the three papers, it is possible to identify time management, and space allocation as process areas that affect them.

The scoping review and the St. Michael's study both highlighted the importance of physicians being able to allocate time to, for example, screening patients for poverty, and/or allocating funds for a dedicated staff member. This ability to allocate physician time comes with a salaried or capitated funding model, but there is no such thing as protected time in the fee-for-service (FFS) funding model.[16] How to justify the cost of such a service to those who approve funding and who are more focused on metrics such as patient throughput was also brought up in the Hong Kong study. In the St. Michael's study, having a Family Health Team funding model that

blends capitation and FFS, as well as performance bonuses, that enabled two fully-funded staff positions for the ISHP service, was essential to its continued sustainability.[17 18]

Having time to address patients' medical and social needs was one of the clearest tensions that emerged from the research. Concerns about the time needed were highlighted by participants in the Hong Kong study as a significant barrier. Intervening to signpost patients to external services or offering supports in-house takes time. The short time allocated to each patient consultation can make it extremely challenging to do this work within the consultation unless the time management of a practice is adjusted to accommodate it. The preponderance of one-question, 60-second or other short-form screening tools identified in the scoping review speaks to this need to be economical with time. This also relates to a practice's flexibility to incorporate social needs interventions into the workflow. In Hong Kong, for example, the fast and efficient throughput of patients from waiting room to consultation to pharmacy enables clinics to see a very large number of patients, but study participants wondered how this factory-line model could accommodate a new intervention, such as screening patients for unmet economic needs. By contrast, at St. Michael's, the screening process for referral to the in-house ISHP service is an additional tool alongside those for clinical referral, all on the same electronic medical record system, and consultations with the promoter typically last up to an hour.

Then there is the space requirement. Even when there is time, there still has to be space allocated to, for example, a consulting room for a link worker, or space for an on-site food bank. In the Hong Kong study, it was apparent that where there is often not even enough space in the waiting

area for all waiting patients to sit down, and all consultation rooms are in active use, finding the space for an additional intervention to be conducted in private could be impossible.

Policies and systems

Although a health care facility intervention to screen patients for unmet economic needs is by definition local, it is also an expression of a more global concept: blurring the line between social and medical care.[19] To what extent this blurring can happen at scale depends on broader social policy, and whether there is a policy direction of combining these two areas, or keeping them separate. The US and Canada studies examined in the scoping review showed that community health centers (CHCs) play a significant role in addressing patients' unmet economic needs, a reflection of their role in serving communities that are vulnerable to poverty and economic hardship.[20 21] In Hong Kong and Ontario, the social welfare and healthcare sectors are to a certain degree in competition with each other for public resources. Even if the healthcare sector professions could be convinced that health problems must be addressed with more upstream measures, requiring redistribution of funding to, for example, housing, it is unlikely that one sector would be supportive of funding being diverted to another, as this would conflict with its own interests.

When these systems are separate—as they are in Hong Kong and Ontario—the lines of communication between the two are often unclear and dysfunctional, a finding that was reflected in all three studies. Indeed, the plethora of job titles for staff who help patients navigate the social welfare system identified in the scoping review is emblematic of the poor coordination between the two sectors when being accessed by the same person. The income security health

promoters in the SMHAFHT bemoaned this lack of synergy between the two sectors, and the participants in the Hong Kong study frequently mentioned how difficult it was for them to identify the relevant part of the social welfare system and signpost that to patients. This can affect the ability of those in the medical system to help patients navigate their way towards help from the social welfare system. Even if there is a will among doctors to refer patients to support services, such services must be available. For example, the level of social welfare support in Hong Kong is far lower than that in Toronto. Government or non-governmental organizations, such as social welfare agencies, first, must be available and, second, must have sufficient capacity to meet demand. The lack of affordable, decent housing, for example, which was mentioned by participants in both the Toronto and Hong Kong studies, cannot be addressed by physicians. The best that they can do is use their political influence as respected members of society to lobby and advocate for upstream change. In the countries covered by this research, the medical profession has been slow to take up the call for a Housing First policy, compared with other professional sectors, such as those working with people experiencing homelessness or addiction, that are more proactive in calling for this approach.[22] This was also reflected in the scoping review, where there was very little evidence of Housing First approaches being advocated for by the medical profession.[23]

Another intervention that is common in North America, the medical–legal partnership, relies on the existence of a legal system that offers low-income individuals scope for legal recourse. Both the scoping review and the St. Michael's study revealed the existence of such interventions. A national body representing such initiatives in the US, which can be found in almost every state, is an indication of how widespread this intervention is there.[24] In the St. Michael's study,

participants mentioned being able to refer patients to the medical–legal service affiliated with their family practice if their client needed legal advice or the intervention of a lawyer. By contrast, such a legal service is non-existent in the context of primary care in Hong Kong.

The way in which a health system is structured is important. Arguably, one of the reasons why the St. Michael's ISHP service has thrived is because it exists within a practice using the patients' "medical home" model, whereby patients can access continuity of care across the life course.[25] The scoping review supports this: the segments of the US health system most actively engaged in this work tended to be CHCs, and health care organizations funded through the Medicaid and Medicare systems.[26 27] In contrast, it is difficult for Hong Kong GOPD patients to build a relationship of trust with their care providers, as the consultation times are so short and patients are not given a choice of who they will see at each visit.

Whether or not the services of, for example, a system navigator, have a dedicated funding stream depends on how the primary care service is funded. In the St. Michael's ISHP service, the navigator's role is a distinct component of the funding package for the health center where the navigators are based, as part of a team-based care approach. In contrast, in Hong Kong, the GOPD clinics do not typically have even a social worker as part of the team, which would be the closest role in the Hong Kong context to that of a system navigator. Direct referrals to a social worker are only an option for physicians working in a GOPD clinic that is attached to a hospital. Funding models that promote team-based care are an important facilitator of SDOH interventions. Without such funding models in place, it will arguably be harder to persuade a primary care practice, particularly one with an FFS model, to allocate funding to non-clinical

interventions.[16] Funding stability is another issue: the scoping review found that it was common for CHCs and other "safety net" clinics to braid together numerous funding sources, including temporary and one-off sources, and that maintaining continuous funding was an ongoing preoccupation.[28]

Both social welfare and health policies are subject to changing governments, which in democratic countries can mean different political parties with distinct ideologies. This can create policy windows and can also shut them. In the St. Michael's study, for example, the funding for the ISHP service was secured at a time when the provincial government was pursuing a policy of Family Health Team-based care, and the new clinic to which the fund was attached opened as part of a politically high-profile urban redevelopment project. In Hong Kong, it is unclear to what extent pro-poor government policies can be expected as the city moves closer to the mainland Chinese model of top-down, authoritarian rule, rather than the autonomous, consensus-based government of the past. Similarly in the scoping review, broader medical system policy was mentioned, for example in the US context, with the promotion of Medicaid Accountable Care Organizations, where payment is contingent on improved patient outcomes, which are in turn heavily influenced by the SDOH.[29] Several studies in the scoping review also mentioned the metric of hospitalization cost savings as a goal for unmet socioeconomic needs interventions.[30 31]

A tale of two cities

Two very different urban settings—Hong Kong and Toronto—were selected for particular focus. As stated in the introduction, the intention was not to directly compare the two settings. However, the study reveals some important contrasts between them. The most striking difference

is the greater extent of the social safety net in Toronto, and the degree of access to continuity of primary care, free of charge at the point of delivery, with scope for physicians to have extended time with patients if needed, and to refer them to social needs specialists. There are also stark contrasts related to the different composition of the patient populations in the St. Michael's and the GOPD clinics in Hong Kong, and, in terms of the surrounding culture, regarding, for example, the high degree of stigma and shame attached to poverty in Hong Kong, and the prevailing norms of self-reliance.

The ISHP service at St. Michaels came about as a result of favorable public policy and the availability of funding for innovation that was associated with a high-profile urban redevelopment project. These circumstances coalesced when there was already a team of physicians and other primary care clinicians with a strong social justice orientation, and a champion for social needs interventions within the family practice. The predicament that primary care physicians in Hong Kong's GOPD clinics find themselves in, as they reflect on the needs of their patients experiencing poverty, and what scope they have to address them, is also a product of circumstance, with a non-democratic government driving social policy that has never been pro-poor, and where the facilitators that drove the St. Michael's ISHP service forward in Toronto do not exist. The barriers to introducing an intervention like the ISHP service in the context of the GOPD clinics appear to be insurmountable unless there is a significant policy change. However, what the settings have in common is an indication that such an intervention often begins with a grassroots-level decision to begin to address patients' unmet economic needs in whatever way is feasible at the time.

Implications for stakeholders: which questions the research answers, and which remain unanswered

This research set out to answer three related questions:

1. How is the primary care sector engaging in work to address the unmet income needs of patients experiencing poverty?
2. What lessons can be learned from one such well-established intervention?
3. What are the barriers and facilitators to engaging in such work in settings with a large population experiencing poverty, but where there are no such interventions?

In answering these questions, the findings of this research have implications for the various groups with a stake in primary care-based interventions to address unmet economic needs, including patients, physicians, and policymakers concerned with health systems, healthcare financing and the social welfare sector. The overarching implication is that it is not only possible to engage in addressing patients' unmet economic needs in primary care, but that there is increasing interest in doing so.

Between them, the three studies illustrate that primary care providers can adopt practical measures to screen for and treat patients' unmet economic needs. They can do this by bringing in outside help (such as welfare rights agencies or medical–legal partnerships); having dedicated in-house staff (such as at St. Michael's); or trying to guide patients to external sources of help, even on an ad hoc basis (as some of the Hong Kong participants reported doing). There are many ways to approach this work, from the micro level, with individual physicians taking the initiative

to ask their patients whether they are experiencing poverty and then signposting them to potential solutions, to a system-wide, institutionalized approach, including the routine collection of the necessary sociodemographic data to flag patients who may be in need of such support. These two approaches are not mutually exclusive, nor is one necessarily a better starting point than the other. Rather, both ends of the spectrum of scale, and everything in between, have their own advantages and disadvantages as a starting point for such work. In terms of screening, it is feasible to focus on one aspect of unmet income needs, such as food insecurity or legal issues, or screen widely instead, asking one simple question: do you have problems making ends meet at the end of the month?

The more the work is supported by management, and with dedicated funding, the more likely it is to be sustained and effective, but such interventions also depend on adoption by the care providers themselves, who may need a practice champion to educate them and lead the work, and interventions often emerge from the grassroots up.

However, while the research shows that physicians *can* do this work, it also points to inherent tensions around whether they *should*, or should be expected to, and also the extent to which it can really make a difference to patients experiencing poverty. These tensions raise questions: is it fair and reasonable to expect physicians to treat conditions (such as being in a state of impoverishment) that are not purely medical in nature? Does this work download responsibility to primary care simply because it is one of the few regular points of contact between people experiencing poverty and a caregiver, when the main responsibility for addressing their problems lies elsewhere, notably in the social welfare sector? What if the social welfare sector was just

simpler to navigate, and did not require the assistance of physicians or system navigators nested within primary care? Does this work benefit physicians, by giving them a means to address the upstream causes of their patients' ill health, or does it just add more work to their already stretched timetable? Do patients want this kind of support from their primary care physician? Does it really make a meaningful difference to patients to guide them to resources, if what is available is demonstrably inadequate? Inadequacy is not only the problem of the social welfare sector, of course. As one of the participants in the Toronto study commented, such work may be derided as "a 'Band-Aid for a bullet-wound,' but so are many medical interventions in primary care".

While some answers to these questions emerge in different parts of the research, these are big-picture questions that at both a philosophical level and practical and political level do not have definitive answers. However, with the deleterious health impact of poverty broadly accepted, and taking the World Health Organization definition of primary care—an approach to health and well-being centered on the needs and preferences of individuals, families and communities—at face value, there is clearly both a role and an incentive for the primary care sector to incorporate work to address the SDOH. [32]

Directions for future research

Studying the health impact of primary care-based economic interventions is a nascent field of investigation, and there are plenty of areas for potential future research. As demonstrated by the scoping review, the field of literature is rapidly growing, and a similar review to take account of literature in the last two years could produce further insights. As a scoping review, its intention

was not to critically appraise the quality of the studies in the review, so this could be a useful exercise for sub-sets of the theme. Measuring success requires that it be defined. One potentially valuable line of inquiry would be to elicit the views of both providers and patients on what they think the metrics of success should be. More studies of community-designed and -led interventions would be an extension of this idea. The natural progression—from individually focused interventions to those in which the health care system engages at the community level to address the upstream determinants, such as lack of affordable housing and other infrastructural inadequacies—will make an interesting study trajectory.

A strength of the second study was that its open-ended conversational interviews with key informants enabled the research to uncover some of the less tangible reasons why this program exists in this setting rather than in other family practices in the same place. However, using a different study design—perhaps ethnographic research that allows the researcher to be more embedded with the participants and observe the work close-up—would paint a more complex picture of the ISHP service, in particular how it is viewed by clients, which was beyond scope of this study. As other similar programs emerge elsewhere in Canada, such as the service in Manitoba modeled on the St. Michael's ISHP service, it would be interesting to investigate how they evolve in their particular context, and how they compare with the Toronto service.

As for the research in Hong Kong, it was conducted at a time when it was possible to be referred to complete strangers who would willingly engage in an interview, and offer a critical look at the way their city's health, social welfare and economic systems are organized, and describe the ways in which they try to work around and within the constraints of their role in the publicly

funded health system. This type of research may no longer be possible in the Hong Kong of 2022. The participant interviews for the Hong Kong study took place at a historically unique and significant moment, one that has been described as "a battle for Hong Kong's very soul."[33] A large-scale and widespread protest movement began in mid-2019 and continued until street protests were quashed in March 2020, and a new National Security Law (NSL) was imposed on July 1 that year.[34] The study's recruitment process preceded and overlapped with this time. The recruitment process called upon purposive and convenience sampling, starting with personal contacts. This referral process relied on trust and also on the generosity of the participants who were willing to openly share their thoughts with a stranger. I believe that, in the subsequent and ongoing climate of fear and suspicion that the NSL has created in Hong Kong, and the overall authoritarian crackdown on dissent from within Hong Kong's political system and civil society, it would not be possible to successfully engage in such a sampling strategy now. It is also unlikely that participants in a similar study would now be as forthcoming in their critique of the Hong Kong government's social policies and the health impact of the city's health system and social safety net. One of the participants expressed interest in running a pilot study based on an adapted version of the Canadian poverty screening tool. If feasible, this would indeed be an exciting and interesting area of future study.

All three papers point to a need for physicians who are more attuned to the unmet economic needs of their patients experiencing poverty. Studies that experiment with experiential learning, or other ways to sensitize medical students to issues such as poverty, are an important avenue to pursue in future research.

Finally, within the time frame of this research, the COVID-19 pandemic resulted in widespread economic hardship, including in the high-income settings studied. For example, in Canada, the pandemic exposed underfunding in social welfare, misalignment of benefits versus need, weaknesses in the social welfare system, and other systemic issues, such as the lack of paid sick leave rights.[35-37] At the same time, federal government financial assistance through the Canada Emergency Response Benefit (CERB) was made available to those unable to work due to COVID-19, but who were ineligible for Employment Insurance (EI).[38 39] CERB provided more financial support than pre-existing benefits, including EI, giving much-needed breathing space to some recipients on very low income.[35] However, one unintended consequence of CERB was that some claimants were subsequently deemed ineligible and were presented with crippling demands for repayment.[36] The lessons learned during COVID-19 highlight the importance of unmet economic needs interventions in primary care, and for guidance for patients navigating the complex social welfare system. COVID-19 has also radically changed service delivery modalities, accelerating innovations such as telehealth consultations, centralized online booking, and access to care for unattached patients (i.e., those without a family physician).[40] The effect of changes to primary care delivery on social needs interventions is worthy of investigation.

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