Revaluing indigenous knowledge to promote men's wellbeing: Insights from qualitative and intervention research in Guatemala

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ABSTRACT

There is rising advocacy for culturally grounded interventions that center indigenous peoples' voices to address the social and structural determinants of mental health and wellbeing in their communities. However, a lack of rigorous evaluation research leaves gaps in understanding around how such approaches can tackle the upstream conditions that influence wellbeing. This is coupled with a dearth of research internationally focused on indigenous men's mental health and psychosocial wellbeing. This thesis aims to address these gaps and inform intervention efforts to promote wellbeing in indigenous contexts through research that centers the perspectives of indigenous communities in Guatemala. The thesis consists of three manuscripts. The first manuscript uses fuzzy cognitive mapping (FCM) to document local perspectives on the factors that influence men's wellbeing in the municipalities of Santiago Atitlán and Cuilco. The second manuscript goes into greater depth exploring local understandings of men's wellbeing through key informant interviews in Santiago Atitlán. The third manuscript presents results from a process evaluation of a dialogic intervention that convened local stakeholders in Santiago Atitlán and Cuilco to critically reflect on the factors that influence wellbeing, prioritize key influences, and carry out community-driven strategies to promote wellbeing. The results presented in these manuscripts highlight local perspectives on men's wellbeing as intertwined with family wellbeing and community solidarity. The results also document understandings of how gender norms intersect with social, cultural, and economic changes—changes that are perceived as harmful to the wellbeing of indigenous men. The results of the process evaluation provide insight into the potential of a dialogic intervention to address key individual and social determinants of wellbeing, while also documenting the limitations of such an approach for addressing certain structural issues that threaten the wellbeing of indigenous communities within the Guatemalan context. The

findings have implications for the Movement for Global Mental Health, maternal and child health promotion, and international development projects. Specifically, the findings call into question efforts to scale up individualized biomedical interventions and point to the need for family and community-based mental health promotion interventions that strengthen family ties, community solidarity, and transmission of indigenous knowledge. The findings also suggest that men's own wellbeing merits greater attention in interventions to promote maternal and child health. This research supports calls for a shift away from the priorities of mainstream development approaches to emphasize indigenous notions of collective wellbeing and social reciprocity.

RÉSUMÉ

De plus en plus de voix s'élèvent en faveur d'interventions culturellement adéquates centrées sur la voix des peuples autochtones pour aborder la question des déterminants sociaux de la santé mentale et du bien-être des communautés. De plus, le manque de recherche évaluative rigoureuse limite notre compréhension des façons par lesquelles de telles approches pourraient aborder les conditions qui influencent le bien-être. A cela s'ajoute la rareté de recherches internationales sur la santé mentale et le bien-être psychosocial des hommes autochtones. Cette thèse vise à combler cette brèche dans les connaissances et à orienter les interventions de promotion du bien-être en milieux autochtones par le biais d'une recherche centrée sur les perspectives locales des communautés autochtones. La thèse se compose de trois manuscrits. Le premier manuscrit porte sur les représentations locales relatives aux facteurs qui influencent le bien-être des hommes à Santiago Atitlán et Cuilco, au Guatemala, à l'aide de la méthode du *fuzzy cognitive mapping* (FCM) – ou *cartographie cognitive floue*. Le deuxième manuscrit explore plus en profondeur les représentations locales relatives au bien-être des hommes autochtones à travers des entretiens qualitatifs individuels avec des informateurs-clés à Santiago Atitlán. Le troisième manuscrit

présente les résultats d'une évaluation de processus d'une intervention dialogique réunissant des acteurs locaux de Santiago Atitlán et Cuilco, pour réfléchir de manière critique aux facteurs qui influencent le bien-être et la mise en œuvre de stratégies communautaires de promotion du bien-être. Les résultats présentés dans ces manuscrits mettent en évidence les perspectives locales sur le bien-être des hommes qui sont étroitement liées au bien-être de la famille et à la solidarité communautaire. Les résultats documentent également les représentations locales relatives à la manière dont les normes de genre s'articulent dans le contexte de changements sociaux, culturels et économiques perçus comme menaçant au bien-être des hommes autochtones. Les résultats de l'évaluation de processus donnent un aperçu du potentiel d'une intervention dialogique pour aborder les principaux déterminants individuels et sociaux du bien-être, tout en documentant les limites d'une telle approche pour résoudre certains problèmes structurels qui menacent le bien-être des communautés autochtones dans le contexte guatémaltèque. Ces résultats ont des incidences pour le mouvement de la santé mentale mondiale, la promotion de la santé maternelle et infantile, et les projets de développement international. Plus précisément, les résultats remettent en question les efforts visant à élever à échelle des interventions biomédicales individualistes et soulignent le besoin de développer des interventions familiales et communautaires de promotion de la santé mentale qui renforcent les liens familiaux, la solidarité communautaire et la transmission de connaissances autochtones. Les résultats suggèrent également que le bien-être des hommes mérite une plus grande attention dans les interventions visant à promouvoir la santé maternelle et infantile. Cette recherche s'inscrit dans les appels à s'éloigner des priorités des approches traditionnelles de développement pour mettre l'accent sur les représentations autochtones relatives au bien-être collectif et à la réciprocité sociale.

RESUMEN

Cada vez se aboga más por intervenciones con base cultural que centren las voces de los pueblos indígenas para abordar los determinantes sociales y estructurales de la salud mental y el bienestar en sus comunidades. Sin embargo, la falta de investigaciones de evaluación rigurosas deja vacíos en la comprensión de cómo estos enfoques pueden abordar los antecedentes que influyen en el bienestar. A esto se suma la escasez de investigaciones a nivel internacional centradas en la salud mental y el bienestar psicosocial de los hombres indígenas. Esta tesis tiene como objetivo abordar estas brechas e informar los esfuerzos de intervención para promover el bienestar en contextos indígenas a través de la investigación que se centra en las perspectivas de las comunidades indígenas en Guatemala. La tesis consta de tres manuscritos. El primer manuscrito utiliza *fuzzy cognitive mapping* (FCM) – ou *mapeo cognitivo difuso* para documentar las perspectivas locales sobre los factores que influyen en el bienestar de los hombres en las municipalidades de Santiago Atitlán y Cuilco. El segundo manuscrito profundiza la exploración de la comprensión local del bienestar de los hombres a través de entrevistas con informantes clave en Santiago Atitlán. El tercer manuscrito presenta los resultados de una evaluación del proceso de una intervención dialógica que convocó a actores locales en Santiago Atitlán y Cuilco para reflexionar críticamente sobre los factores que influyen en el bienestar, priorizar las influencias clave y llevar a cabo estrategias impulsadas por la comunidad para promover el bienestar. Los resultados que se presentan en estos manuscritos destacan las perspectivas locales sobre el bienestar de los hombres como algo entrelazado con el bienestar de la familia y la solidaridad de la comunidad. Los resultados también documentan la comprensión de cómo las normas de género se cruzan con los cambios sociales, culturales y económicos, cambios que se perciben como una amenaza para el bienestar de los hombres indígenas. Los resultados de la evaluación del proceso proporcionan una

visión del potencial de una intervención dialógica para abordar los determinantes individuales y sociales clave del bienestar, a la vez que documentan las limitaciones de dicho enfoque para abordar ciertas problemáticas estructurales que amenazan el bienestar de las comunidades indígenas en el contexto guatemalteco. Los resultados tienen implicaciones para el Movimiento por la Salud Mental Global, la promoción de la salud materno-infantil y los proyectos de desarrollo internacional. Específicamente, los hallazgos cuestionan los esfuerzos por ampliar las intervenciones biomédicas individualizadas y señalan la necesidad de intervenciones de promoción de la salud mental basadas en la familia y la comunidad que fortalezcan los lazos familiares, la solidaridad comunitaria y la transmisión de los saberes indígenas. Los resultados también sugieren que el propio bienestar de los hombres merece una mayor atención en las intervenciones para promover la salud materno-infantil. Esta investigación apoya la necesidad de apartarse de las prioridades de los enfoques de desarrollo dominantes para hacer un mayor énfasis en las nociones indígenas de bienestar colectivo y reciprocidad social.

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As a PhD student and parent of two young children, I cannot overemphasize the importance of the policies that made it possible for me actively pursue my degree while simultaneously growing my family. In particular, I am grateful for the reasonable policies of paid parental leave provided through the Vanier Canada Graduate Scholarship, as well as my husband's paid parental leave through the government of Quebec. I also recognize the instrumental role of subsidized childcare in allowing my husband and me to continue working while our children were young. I truly feel that pursuing my PhD while becoming a mother would not have been possible in my home country of the United States, where there are currently no federal policies for paid parental leave and costs of childcare are exorbitant. I am grateful to Quebec and Canada for extending policies that support working parents to temporary residents.

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and ensuring that I stepped away from my research each day to read stories, build gadgets, and play with trains.

CONTRIBUTION TO ORIGINAL KNOWLEDGE

There is growing interest in building research evidence around indigenous conceptualizations of wellbeing—to inform wellbeing indicators and intervention strategies. However, this is the first study, to my knowledge, that uses FCM to capture indigenous understandings of the conditions that influence wellbeing. Moreover, there is a dearth of research internationally that takes an intersectional approach to understanding indigenous men's wellbeing—with the limited research that has been published limited to 'CANZUS' countries—Canada, Australia, New Zealand, and the United States (US). This study is the first to take an intersectional approach to understanding local conceptions of indigenous men's wellbeing in Guatemala.

There is also growing recognition of the importance of community participation in planning culturally grounded strategies to promote psychosocial wellbeing in indigenous contexts. A group dialogic approach, which has been used to systematize the process of generating community-led solutions to other health issues (most widely for maternal and neonatal mortality prevention) has only recently been applied to addressing issues related to mental health. This thesis includes the first process evaluation of a group dialogic intervention to promote wellbeing in an indigenous context.

CONTRIBUTION OF AUTHORS

The thesis includes three co-authored manuscripts for which I am the first author. Each of these manuscripts is based on research where I played a leading role in study design, data collection, analysis, and interpretation. Manuscript co-authors supported the research process and writing of these manuscripts in various capacities, as documented below:

Manuscript 1: *Community views of determinants of men's wellbeing in Guatemala: a study using fuzzy cognitive mapping*

This manuscript was submitted to *BMJ Open*. Katherine Pizarro, Anne Marie Chomat, Neil Andersson and Anne Cockcroft co-led the conceptualization of the study. Katherine Pizarro co-led data collection alongside Diego Petzey Quieju, Bernardo Yarcinio Lopez, and Anne Marie Chomat. The first author, Katherine Pizarro, led data analysis, interpretation, and the drafting of the manuscript. Danielle Groleau contributed to the study's conceptualization and preparation of the manuscript as Katherine's PhD supervisor. Diego Petzey Quieju, Bernardo Yarcinio Lopez, Iván Sarmiento, Anne Marie Chomat, Nicholas LeBel, Chloe Mancini, and Anne Cockcroft contributed to data analysis. All co-authors critically revised the manuscript.

Manuscript 2: *Maya Tz'utujil perspectives on men's wellbeing in Guatemala: the role of gender, family, and social change*

This manuscript has been submitted to *Transcultural Psychiatry.* The first author, Katherine Pizarro, led the conceptualization of the study, data collection, analysis, interpretation, and drafting of the manuscript. Co-authors Diego Petzey Quieju and Dolores Quievac Sapalú were involved in adapting the interview guide to Tz'utujil, planning participant recruitment strategies, carrying out interviews with participants in Tz'utujil, interpreting findings, and providing critical review of the manuscript. Their perspectives as community leaders in Santiago Atitlán proved essential for contextualizing the research findings. Co-authors Anne Marie Chomat and Danielle Groleau provided feedback throughout the planning of the study and provided critical feedback on the manuscript.

Manuscript 3: *Community engagement to promote wellbeing in Guatemala: Process evaluation of a group dialogic intervention*

This manuscript was submitted to the *American Journal of Community Psychology*. The first author, Katherine Pizarro, led the conceptualization of the study, co-led data collection (individual interviews with group facilitators, observations of group reflection sessions), led data analysis and interpretation, and led the drafting of the manuscript. Co-authors Anne Marie Chomat, Diego Petzey Quieju, Bernardo Yarcinio Lopez, Sadi García and Dolores Quievac Sapalú co-led parts of the data collection (individual interviews with participants, observations of group reflection sessions, facilitator monitoring logs) and contributed to interpreting the findings. Nicholas LeBel Contributed to data collection, analysis, and interpretation. Neil Andersson, Anne Cockcroft, Danielle Groleau, Robert Ledogar, and Anne Marie Chomat contributed to conceptualizing and designing the study. All co-authors critically revised the manuscript.

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LIST OF ABBREVIATIONS

AOR	Adjusted odds ratio
CBT	Cognitive behavior therapy
FCM	Fuzzy cognitive mapping
GMH	Movement for Global Mental Health
IPV	Intimate partner violence
ISIS	Instituto de Salud Incluyente (Inclusive Health Institute)
KIIs	Key informant interviews
LMICs	low- and middle-income countries
MCH	Maternal and child health
MSPAS	Ministerio de Salud Pública y Asistencia Social
PAHO	Pan American Health Organization
PTSD	Post-traumatic stress disorder
RCT	Randomized Controlled Trial
SWB	Subjective wellbeing
TC	Transitive closure
UN	United Nations
US	United Sates
WHO	World Health Organization

CHAPTER 1. INTRODUCTION

Documentation of the contribution of mental illness to global disease burden has led to efforts to scale up access to mental health services worldwide (Patel, Flisher, & Cohen, 2011). With a view to health equity and social justice, there is undoubtedly a need for action to address the mental health of populations around the world. Indigenous populations fare worse on many indicators of general health and mental health than their non-indigenous counterparts; there is an urgent need for research and action to promote mental health and tackle related issues such as substance use and suicide in indigenous contexts. However, the best approach for addressing these issues in indigenous populations is less clear. Indigenous scholars make the case that neocolonial remnants are prominent in the ways we address and even talk about indigenous mental health. Gone, for example, writes:

> In the arena of mental health, for example, it may be that the missionary, military, and anthropology vanguard of the historic ‘‘White–Indian’’ encounter has been displaced of late by the professional psychotherapists or credentialed counselors of the ‘‘behavioral health’’ clinics who, armed with their therapeutic discourse and their professional legitimacy, are ‘‘using a more shrewder way than the old style of bullets’’ to resolve the age-old ‘‘Indian problem.’’(Gone, 2008, p. 312)

A large body or research suggests that much of the suffering of indigenous groups worldwide stems from loss of culture and autonomy based on colonial persecution. Forms of colonization have included theft of territorial lands and resources, suppression of indigenous forms of governance and authority, repression of indigenous forms of spirituality, disruption of family dynamics through policies such as forced labor or removal of children from their families, and forced abandonment of healing traditions (Gone, 2008; Kirmayer, Simpson, & Cargo, 2003;

Turner & Luna Sánchez, 2020). Research in Canada has linked historical trauma to post-traumatic stress disorder (PTSD), depression, drug dependence, suicide, homicide, incarceration, and dysfunctional interpersonal relationships (Denham, 2008; Maxwell, 2014). In Guatemala, a 36-year armed conflict directed primarily at indigenous Maya further exacerbated the oppression and fragmentation of indigenous community structure, social ties, spirituality, and cultural traditions (Turner & Luna Sánchez, 2020). Moreover, ongoing neoliberal policies prioritize the economic interests of a wealthy elite, while destroying natural resources and local livelihoods (Benson, Fischer, & Thomas, 2008; Caxaj, Berman, Varcoe, Ray, & Restoulec, 2014). Standard biomedical models of mental illness, which are highly individualized, decontextualized, and pathology-oriented, often fail to capture indigenous peoples' understandings of mental health and illness (Gone, 2008; Walls, Hautala, & Hurley, 2014). This framing holds discursive power (Pratt, 2019)—locating psychopathology within individuals while discounting underlying political and social determinants of suffering (De Leeuw, Greenwood, & Cameron, 2010; Kirmayer, Sehdev, Whitley, Dandeneau, & Isaac, 2009; Kirmayer et al., 2003; Maxwell, 2014). Individual biomedical interventions both fail to address the root causes of suffering and further displace indigenous healing traditions (Tait, 2000). Moreover, a focus on pathology comes at the expense of understanding resilience (Denham, 2008). Nevertheless, research on indigenous people's psychosocial wellbeing has primarily been conducted within a biomedical 'mental health' framework (Kirmayer, Sehdev, et al., 2009).

A growing body of international research suggests the need for holistic, strengths-based approaches to understanding and addressing indigenous people's psychosocial needs (Bourke, Humphreys, Wakerman, & Taylor, 2010; Kirmayer, Sehdev, et al., 2009; Pyett, Waples-Crowe, & van der Sterren, 2008). Local authorship of wellbeing-promotion strategies is advocated as a

strategy to restore autonomy to indigenous communities, ensure that strategies are relevant to local needs, and strengthen local sources of resilience (Kirmayer, Sehdev, et al., 2009; Kral & Idlout, 2009; MacDonald, Ford, Willox, & Ross, 2013). Scholars suggest that the autonomy afforded to individuals and communities through participation in the planning and design of interventions can address key upstream determinants of indigenous mental health and wellbeing, including self-esteem, community autonomy, and cultural connection (Kral & Idlout, 2009). Nevertheless, few studies have systematically evaluated the process of community engagement in planning of strategies to promote wellbeing.

This thesis aims to challenge the individualized, biomedical assumptions embedded in global mental health discourse about the causes of suffering and best strategies to promote mental health. It does so by centering the perspectives of remote and indigenous communities in Guatemala about the meaning of wellbeing, manifestations of distress, factors that influence wellbeing, and wellbeing-promotion strategies. Valuing indigenous knowledge is understood as a necessary step for re-contextualizing psychosocial distress and wellbeing as embedded in social, cultural, and structural environments. Indigenous perspectives are also understood as key for the development of culturally grounded approaches to wellbeing promotion that will allow health practitioners to move away from imposing evidence-based interventions developed in non-indigenous contexts.

Rationale and objectives

Several studies have looked in depth at the experience of distress among indigenous populations in Guatemala (Caxaj et al., 2014; Chávez Alvarado, Pol Morales, & Villaseñor Bayardo, 2005; Foxen, 2010; Godoy-Paiz, Toner, & Vidal, 2011; Sullivan, 2007). However, most research in Guatemala has either not taken a gendered perspective or has focused on indigenous women's

experience of distress. While scholars highlight the importance of gender roles for the psychosocial health of indigenous men, there is a dearth of research internationally focused on indigenous men's mental health or psychosocial wellbeing (George, Morton Ninomiya, Graham, Bernards, & Wells, 2019; Nelson & Wilson, 2017; Waddell et al., 2021). Despite concerning rates of alcohol use disorders, domestic violence (Ministerio de Salud Pública y Asistencia Social (MSPAS), Instituto Nacional de Estadística (INE), & Secretaría de Planificación y Programación de la Presidencia (Segeplán), 2016; Speizer, Goodwin, Samandari, Kim, & Clyde, 2008), and suicidal ideation (Pezzia & Hernandez, 2021) among men in Guatemala, no studies have looked specifically at the experience of distress among indigenous men in Guatemala. Research internationally suggests the importance of strengths-based perspectives for the promotion of indigenous people's psychosocial wellbeing, yet no research has explored the meaning of wellbeing among indigenous populations in Guatemala, for either gender.[1]

A growing body of research on interventions addressing indigenous mental health, substance use and suicide in North America and Australia suggests the importance of strengthening cultural identity (MacLean, Ritte, Thorpe, Ewen, & Arabena, 2017; Rowan et al., 2014) and promoting community autonomy through participatory intervention approaches (Kral & Idlout, 2009; Tsey et al., 2007). However, rigorous evaluations of participatory intervention approaches are rare. No study has evaluated a participatory or dialogic approach to promoting indigenous wellbeing in Guatemala. There is also a gap in the research literature surrounding the evaluation of interventions to promote indigenous men's wellbeing. As recently argued by Van Belle, Rifkin, and Marchal (2017, p. 5), in-depth evaluation of the mechanisms underlying participatory learning groups are needed to 'open the "black boxes" of "community" and "participation" in order to

[1] While I recognize a spectrum of gender identities, exploring the perspectives and experiences of non-binary individuals was beyond the scope of the research included in this thesis.

examine the role they play in ensuring cost-effective, sustainable interventions.' To address these research gaps, I set the following research objectives:

1. To explore local views of the meaning of men's wellbeing and manifestations of men's distress in Santiago Atitlán, Guatemala.

2. To explore and systematize the knowledge of marginalized communities in Guatemala about the factors that influence men's wellbeing.

3. To evaluate the feasibility of implementing a dialogic intervention to promote wellbeing in remote and indigenous communities in Guatemala, with a focus on how local context influenced the implementation process.

4. To explore participant perspectives on key mechanisms of the dialogic intervention for promoting psychosocial wellbeing.

Structure of the thesis

In chapter 2, I present a review of the literature on indigenous mental health and wellbeing, as well as the evidence base surrounding community-based wellbeing promotion relevant to indigenous populations. The literature review aims to situate the research presented in this thesis within a growing body of international research on the mental health and wellbeing of indigenous populations, as well as the body of research on mental health promotion interventions. The literature review focuses, to the extent possible, on literature from Guatemala and other indigenous contexts in Latin America. It also draws on literature from North America, Australia, and New Zealand since research on these topics from Guatemala and Latin America is limited. As intersectional research on indigenous men's mental health and wellbeing has been limited, I rely in many instances on research with indigenous populations broadly and research conducted with non-indigenous men. I highlight considerations specific to indigenous men whenever there is

research available. The literature review has three sections: a) indigenous conceptualizations of wellbeing, b) the social and structural determinants of indigenous people's mental health and wellbeing, and c) evidence about what works to promote mental health in the community—with an eye toward research specific to men and indigenous populations. Evidence around dialogic interventions is also presented.

In chapter 3, I explore and compare local understandings of the factors that influence men's wellbeing through findings from fuzzy cognitive mapping (FCM) carried out with 20 groups of men, women and *terapeutas Mayas* (practitioners of Mayan medicine) in Santiago Atitlán and Cuilco, Guatemala. In Chapter 4, I explore local understandings of men's wellbeing and distress in greater depth using key informant interviews (KIIs) in Santiago Atitlán. In chapter 5, I present findings from a process evaluation of a dialogic intervention piloted with communities in Santiago Atitlán and Cuilco, Guatemala to promote men's and women's wellbeing. In chapter 6, I conclude with a discussion of the findings and implications for development programming and global mental health practice.

Study context

Guatemala is a multicultural country with one of the largest indigenous populations in Latin America. The indigenous population is made up of 24 distinct ethnolinguistic groups, including 22 Mayan groups, the Xinca and Garífuna (International Work Group for Indigenous Affairs, n.d.). While the 2018 Guatemalan census estimates that the indigenous Maya, Xinca and Garífuna comprise 41.66%, 1.77% and 0.13% of the population, respectively (Instituto Nacional de Estadística Guatemala, 2019), others assert that the indigenous population is, in fact, a majority (Turner & Luna Sánchez, 2020). According to the Guatemalan census, the majority of Guatemala's population identifies as *ladino*, a term used to imply non-indigenous status, but includes

individuals who have abandoned their indigenous identity through shifts in language and cultural practices (Matthew, 2006). Ladino populations typically have a majority indigenous ancestry (Söchtig et al., 2015). Identify shifts have often occurred due to discrimination, persecution and structural inequities faced by indigenous populations in Guatemala, meaning certain ladino populations share similar determinants of poor health with their indigenous counterparts. Moreover, research suggests that those who have indigenous parents but do not speak an indigenous language themselves may be particularly at risk for poor mental health (Pezzia & Hernandez, 2021).

In discussing indigeneity, we face the challenge of recognizing that knowledge about one indigenous community may have very little relevance to the next, while also recognizing the shared experiences and repercussions of colonization. Indigenous peoples are widely recognized today through national and international discourse and legislation; however, any attempt to define the term has proven problematic (Simpson, 2011; Stevenson, 2014; United Nations General Assembly, 2007). The United Nations (UN), an international body that has made great strides in advocating for indigenous rights, chooses to provide a description rather than a definition of indigenous peoples and states that inclusion in this category should take the form of self-identification (United Nations Permanent Forum on Indigenous Issues, n.d.). Nonetheless, the UN describes indigenous peoples in the following way:

> Practicing unique traditions, they retain social, cultural, economic and political characteristics that are distinct from those of the dominant societies in which they live… those who inhabited a country or a geographical region at the time when people of different cultures or ethnic origins arrived. The new arrivals later became dominant through

> conquest, occupation, settlement or other means. (United Nations permanent forum on indigenous issues, n.d.)

As Niezen points out, although the UN Declaration on the Rights of Indigenous Peoples was created to preserve cultural diversity, "The very creation of this category [of indigenous peoples], is predicated upon global sameness of experience, and is expressed through the mechanisms of law and bureaucracy, the culprits most commonly associated with steady gains of cultural uniformity" (Niezen, 2003, p. 2). It would be a mistake to reduce indigenous peoples to their shared colonization experience but failing to recognize the role of colonization in undermining indigenous community structures, culture and sources of strength also encourages displacement of the blame for many modern-day colonial sequelae back onto indigenous communities (Kirmayer, Simpson, & Cargo, 2003; Kirmayer, Brass, & Tait, 2000).

The research included in this thesis took place in communities from two municipalities in Western Guatemala—one with a majority Maya Tz'utujil population and the other with a majority ladino, minority Maya Mam population. The findings must be understood as particular to the communities where the research took place. Nevertheless, parallels are drawn with research conducted in indigenous contexts outside of Guatemala to identify shared perspectives and experiences, as well as the potential cross-border relevance of interventions.

CHAPTER 2. LITERATURE REVIEW

Indigenous mental health and wellbeing

The World Health Organization (WHO) defines mental health as "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community" (Saxena, Funk, & Chisholm, 2015). Although this definition reflects a holistic understanding of mental

health as embedded in social and structural contexts, and not simply the absence of mental illness, this hasn't necessarily translated into global mental health policies. A 2007 Lancet series on Global Mental Health drew attention to the "treatment gap," referring to the "the percentage of individuals who require treatment in a country or in a defined community but do not receive it through scaling up evidence-based mental health services" (Pathare, Brazinova, & Levav, 2018, p. 463). That series launched the Movement for Global Mental Health, and shortly thereafter, the WHO created the Mental Health Gap Action Programme (mhGAP) to support scaling up of evidence-based mental health services around the world (Patel et al., 2018). Many scholars have been critical that this emphasis on closing the "treatment gap" has overshadowed attention to the social and structural determinants of mental health and has engendered a narrow biomedical view of mental health in policy and practice (Campbell & Burgess, 2012; Fernando, 2011; Mills, 2014). Scholars in Latin American have emphasized psychosocial distress as an outcome of dysfunctional social relations in the wake of political violence in many parts of the region and the inadequacy of individualized treatments to address these underlying problems (Martín-Baró, 1989). Many of the authors in the original Lancet series have recently called for change.

> …hastening the shift from the treatment gap notion, with its implicit biomedical emphasis, to a broader care gap perspective, increased recognition of the crucial contribution of civil society and local leadership, and action beyond the health sector, to make the contexts in which people grow up, live, work, and age more promoting of mental health (Kola et al., 2021, p. 541).

Indigenous scholars have likewise been critical of attempts to apply western concepts of mental health and psychopathology to indigenous peoples (Gone, 2008; Maxwell, 2014). Recognition that biomedical models of mental illness are insensitive to cultural, social, and

historical contexts has pushed researchers to define mental health and wellbeing in terms that resonate with indigenous peoples' own worldviews (Kant, Vertinsky, Zheng, & Smith, 2014; Kirmayer, Fletcher, & Watt, 2009; Kral, Idlout, Minore, Dyck, & Kirmayer, 2011). For example, Naomi Adelson, in her in-depth ethnographic inquiry into Cree health and wellbeing among the Whapmagoostui Cree of Northern Quebec, found that Cree concepts of wellbeing encompass much more than the absence of pathology; rather, wellbeing is intimately tied to Cree identity, the land, and traditional food. She writes, "Their discussions of *miyupimaatisiiun* [which she translates as "being alive well" and the closest Cree word for health] moved discourses on health beyond the boundaries of the physical body by connecting physiological wellness to social and political wellbeing" (Adelson, 2000, p. 60). Notions of wellbeing as extending beyond the individual body render incomplete nearly all western understandings of psychopathology.

While indigenous communities have vastly different cultures, traditions and historical experiences, research has identified commonalities across diverse contexts in indigenous understandings of wellbeing. Conceptions of wellbeing tend to include elements of self-determination, connection to family and community, harmonious interpersonal relationships, connection to the land, connection to indigenous language and cultural practices, spirituality, income security, recognition and respect, and physical health (Health Canada, 2015; Kirmayer, Fletcher, et al., 2009; Rountree & Smith, 2016; Yap & Yu, 2016). Limited research in Guatemala suggests physical health, mental health, spirituality, harmonious interpersonal relationships, and connection to nature are seen as intertwined and integral to the wellbeing of indigenous Maya (Chávez Alvarado et al., 2005). Groups have used different terms to denote this holistic, strengths-based perspective—"mental wellness" among First Nations in Canada (Health Canada, 2015) and "social and emotional wellbeing" among aboriginal groups in Australia (Tsey et al., 2007). I will

use the term psychosocial wellbeing, or simply wellbeing, to refer to this concept throughout the thesis. Nevertheless, while there is overlap in how wellbeing is conceptualized across indigenous contexts, it is also recognized that "the specific ways in which wellness is configured, achieved and experienced vary with particular cultural values, social contexts, and ways of life" (Kirmayer, Sheiner, & Geoffroy, 2016, p. 116). In particular, research suggests that the specific domains that contribute to eudemonic wellbeing, or feelings of life satisfaction, are likely to vary across contexts (Kant et al., 2014).

Research in positive psychology has emphasized elements of flourishing that go beyond the absence of mental illness. For example, Keyes (2005) defines mental health as "a complete state in which individuals are free of psychopathology and flourishing with high levels of emotional, psychological, and social well-being" (Keyes, 2005, p. 539). This definition, particularly the emphasis on social wellbeing, more closely aligns with some indigenous definitions of wellbeing but is still rooted in individualistic notions of personhood that may not fit with more relational or ecocentric understandings of personhood (Kirmayer, Fletcher, et al., 2009). Moreover, while it is recognized that this definition of mental health may apply to diverse populations, the factors that contribute to experiencing flourishing are likely to vary across contexts. Subjective wellbeing (SWB)—a concept closely aligned with Keyes' definition of positive mental health, has increasingly been placed at the center of research on wellbeing in diverse contexts. SWB emerged as an alternative way to measure quality of life beyond simplistic measures of wealth and educational attainment that have dominated the development literature (Keyes, 2006). Subjective wellbeing (SWB), which can be measured through a single question about a person's view of their quality of life, is thought to be universally applicable, while it is

recognized that the domains that influence a person's self-assessment will vary across contexts (Rojas, 2008).

While I recognize the aforementioned limitations of research on mental health and mental illness for indigenous populations, in the absence of a differentiated body of literature on the determinants of psychosocial wellbeing, I rely in this literature review on research that includes both broadly and narrowly defined concepts of mental health and mental illness. This is not to conflate the meanings of subjective wellbeing, mental health, and mental illness, which are recognized as distinct concepts. Nevertheless, for some common mental disorders, such as depression, there is substantial overlap between mental illness and lack of positive mental health (Agteren & Iasiello, 2020). There also exists evidence that mental illness and SWB are correlated, and that positive mental health (including positive emotions and life satisfaction) is protective against future mental illness in North American contexts (Keyes, Dhingra, & Simoes, 2010).

Social and structural determinants of indigenous wellbeing in Guatemala

The following sections describe the published literature on social and structural determinants of wellbeing as relevant to indigenous peoples living in post-war Guatemala. I present considerations specific to indigenous men when literature is available that takes a gendered lens.

Violence

Community-level and political violence are associated with elevated rates of common mental disorders internationally (Srinivasa Murthy, 2007), and have perhaps received the greatest attention as drivers of poor mental health in Guatemala in the wake of the 36-year armed conflict war. During the armed conflict, 200,000 civilians were killed, the vast majority of whom were indigenous Maya, and military tactics sought to instill fear through public torture and killings (Commission for Historical Clarification, 1999). A nationally representative survey in Guatemala

found an association between previous experience of violence and PTSD (Adjusted odds ratio (AOR)=52.7 for indigenous participants) (Puac-Polanco et al., 2015). While odds of PTSD were elevated for those who reported experiencing violence both during (AOR=29.4) and after the period of armed conflict (AOR=10.0), odds were significantly higher for those who experienced violence during the armed conflict (Puac-Polanco et al., 2015). The same study found that previous exposure to violence was associated with increased odds of depression (AOR=6.0) among the indigenous populations included in the sample, with no significant difference in odds of depression depending on whether violence was experienced during or after the armed conflict (Puac-Polanco et al., 2015). Another study that involved a mostly indigenous convenience sample from Guatemala City and the Western highlands of Guatemala found increased odds of several measures of problematic alcohol use among those who had experienced violence during the armed conflict, but most of these measures of problematic alcohol use were not significant in a regression model that adjusted for age, gender, employment status, education level, location of residence (urban v. rural) and marital status. Only "being annoyed by people criticizing their drinking" had a significantly higher odds ratio among those who had direct civil war experience in the adjusted analysis (AOR=11.4) (Branas et al., 2013). Qualitative research, which has focused primarily on the experiences of indigenous women exposed to violence in Guatemala, highlights lasting distress in the post-war period related to experience of traumatic events during the armed conflict (loss of family members, displacement from land, violence, sexual assault), which is understood to be aggravated by ongoing violence and fear (Godoy-Paiz et al., 2011; Lykes, Beristain, & Pérez-Armiñan, 2007). Political violence is a more distal contributor to the many other proximal determinants of psychosocial health—including poverty and deterioration of community and

family social cohesion, which will be discussed in subsequent sections (Anckermann et al., 2005; Foxen, 2007, 2010).

Guatemala continues to be plagued by violence in the post-war period, with an annual intentional homicide rate of 29 per 100,00 population in 2015, compared to 5 per 100,000 worldwide during that same period (The World Bank, 2018). Ethnographic research in Guatemala suggests that widespread economic insecurity, social fragmentation, and ready availability of weapons in the post-war period contribute to high rates of homicide (Benson et al., 2008). Ethnographic research also highlights how lack of law enforcement and resulting distrust of the justice system have forced indigenous communities to resort to vigilante justice (Anckermann et al., 2005; Foxen, 2007; Godoy, 2002; Sieder, 2011) and have fostered a state of chronic fear (Caxaj et al., 2014; Foxen, 2007; Godoy, 2002). For example, Caxaj et al. (2014), documented pervasive fear and social distrust in San Miguel Ixtahuacán, a primarily Mam Maya community in Guatemala being subjected to a large-scale mining operation; participants in their study describe social fragmentation around support of the mine, and fear resulting from threats and violence perpetrated by those affiliated with the mine against those in opposition.

Domestic violence has also been linked to poor mental health for both men and women, although most research has focused on the negative repercussions of intimate partner violence (IPV) for women's mental health (Ellsberg, Jansen, Heise, Watts, & Garcia-Moreno, 2008). A connection between experiencing IPV and women's psychological distress has been established in Guatemala (Hackman, Maupin, & Brewis, 2016). Several international studies indicate that men's experience of childhood abuse is associated with perpetration of IPV as adults, and that these associations are at least partially mediated by poor mental health (including PTSD, depression, substance use, binge drinking) (Brown, Perera, Masho, Mezuk, & Cohen, 2015; Machisa &

Shamu, 2018; Machisa, Christofides, & Jewkes, 2016). In Guatemala, 46% of men have experienced physical abuse in their childhood, and those that have experienced childhood abuse are nearly four times as likely to use physical violence against their own children compared to men who did not experience childhood physical abuse (Speizer et al., 2008). Data also indicate elevated suicidality among men who have either perpetrated or been a victim of interpersonal violence, and qualitative data indicate that perpetration of IPV may lead to feelings of shame among men—hypothesized to be a pathway to suicidality (Pezzia & Hernandez, 2021).

Poverty and socioeconomic status

It is estimated that 47% of Guatemala's population lives in poverty (The World Bank, 2018), and 64% of the population experiences food insecurity (Maupin & Hackman, 2021). Like other Central American countries, the population of Guatemala experiences high levels of inequality, with a Gini coefficient of 48.3 in 2014 (The World Bank, 2018). Indigenous people in Guatemala are particularly marginalized, with three out of every four living in poverty, compared to one in three non-indigenous Guatemalans (Ministerio de Salud Pública y Asistencia Social (MSPAS), Pan American Health Organization (PAHO), & World Health Organization (WHO), 2016). Moreover, indigenous people in Guatemala have an average of 3.5 years of schooling compared to 6.4 years for ladinos, limiting chances for upward mobility (Ministerio de Salud Pública y Asistencia Social (MSPAS), Pan American Health Organization (PAHO), et al., 2016). Mental disorders and poverty are thought to be mutually causative, in that poverty increases vulnerability to mental illness (social causation theory), and mental illness also increases the likelihood of experiencing poverty (social drift theory) (Lund et al., 2010). Numerous epidemiological studies in both high-income countries and low- and middle-income countries (LMICs) have found an association between indicators of poverty and related deprivations in accessing basic needs (including lower income, lower

education levels, unemployment, poor housing quality, food insecurity, financial stress) and common mental disorders (Lund et al., 2010). A limited number of cohort studies in LMIC support the role of poverty in contributing to common mental disorders (Lund et al., 2010). Nevertheless, indicators of inability to meet basic needs, including food insecurity, poor housing, financial stress, and lower education levels, are more consistently associated with common mental disorders across studies, as compared to income levels, unemployment, and per capita expenditure (Lund et al., 2010). A nationally representative survey of women in Guatemala found that while wealth quintile did not predict women's psychological distress, food insecurity was associated with elevated rates of psychological distress (relative risk for moderate-severe stress=2.4 among those with moderate food insecurity and 4.7 among those with severe food insecurity) (Hackman et al., 2016). Similarly, food insecurity was associated with elevated levels of depression symptom severity (as measured by Personal Health Questionnaire 9 in a mixed indigenous and non-indigenous urban sample of women from the Central Highlands of Guatemala (Maupin & Hackman, 2021). Ethnographic research among the K'iche Maya in Guatemala suggests that struggles to meet basic needs and lack of economic prospects in rural indigenous communities are important contributors to hopelessness, worry, low self-esteem and alcohol consumption (Foxen, 2010; Sullivan, 2007).

Research suggests that different indicators of poverty are likely to vary in importance for wellbeing depending on context. In Mexico, for example, while household income from work and secondary education are significant predictors of "feeling one's life has improved" for non-indigenous populations, these associations do not hold for indigenous populations (Holzinger & Biddle, 2019). In Ecuador, researchers found that income poverty was a weak indicator of SWB for rural indigenous communities compared with food sovereignty (García-Quero & Guardiola, 2018). Research also suggests that increased participation of Latin America's indigenous

populations in the global economy is leading to cultural shifts that influence the importance of income within indigenous communities (Rojas & Chávez, 2019). A study of one indigenous group in Mexico found that satisfaction within occupation and economic domains were better predictors of life satisfaction for those who did not speak the indigenous language (indicating exposure to the global economy) than those who did speak their indigenous language (Rojas & Chávez, 2019).

Some research also suggests that income inequality is a predictor of poor mental health above and beyond measures of poverty. A recent review that included 11 studies from LMICs found that 73% of studies from LMICs found a positive association between levels of income inequality and prevalence of adult mental illness (Tibber, Walji, Kirkbride, & Huddy, 2021). Research from European countries has found that the relationship between income inequality and mental illness can be explained largely in terms of impact on social relations. This includes a mediating effect by variables capturing the experience and consequences of status anxiety (perceived status differentials, anti-social behavior, and violence) and social capital (trust, social support, and civic participation) on the relationship between income inequality and mental health status (Layte, 2012).

Community and family social cohesion

Qualitative research in Guatemala suggests that lack of community and family social cohesion and widespread social distrust, stemming from wartime tactics of pitting neighbors against each other, continue to be major sources of distress within indigenous communities (Anckermann et al., 2005; Foxen, 2007, 2010). International epidemiological studies consistently find an association between individual perceptions of greater trust, social cohesion, and social support at the community level (often aggregated into an indicator termed cognitive social capital) and lower levels of common mental disorders in prospective studies (Ehsan & De Silva, 2015). Moreover, a longitudinal study

in the United Kingdom found community social cohesion to moderate the impact of poverty on mental health (Fone et al., 2014).

Research among indigenous populations internationally suggests that trusting and supportive relationships within the family and community, particularly intergenerational connections, are essential to the wellbeing of indigenous peoples (Kirmayer, Sehdev, et al., 2009; Kral et al., 2011). For Latin American populations as a whole, quality and quantity of family relationships are high compared to North America and have strong associations with measures of subjective wellbeing (increased life satisfaction, increased positive affect, decreased negative affect) (Rojas, 2020). Moreover, quality and quantity of close family relationships are better predictors of subjective wellbeing than income, and income has no association with quality and quantity of close family relationships (Rojas, 2020). Rojas (2020) argues that while trust and access to social support are also associated with subjective wellbeing, and are used more widely in wellbeing research, "they neglect those human relations that are more frequent and more important to people: those which take place regularly between people who know each other on a personal level and on a long-run basis" (Rojas, 2020, p. 106). This is supported by research among internally displaced youth in Colombia documenting that a measure of positive family functioning was associated with reduced odds of psychiatric disorder in the past year (measured using the Composite International Diagnostic Interview), while measures of cognitive and structural social capital were not associated with reduced odds of meeting criteria for a psychiatric disorder (Tamayo-Aguledo et al., 2021).

Community autonomy and cultural continuity

International research, coming primarily from Canada, suggests that community autonomy and maintenance of cultural traditions are key determinants of psychosocial wellbeing among

indigenous populations (Adelson, 2000; Chandler & Lalonde, 1998; Kirmayer, Sehdev, et al., 2009; Kral & Idlout, 2009; Wexler, 2006). Research among indigenous communities in Canada has found a strong negative correlation between youth suicide and community-level indicators of self-governance (including control over local government and services, access to traditional lands and possession of facilities meant to preserve culture) (Chandler & Lalonde, 1998), as well as the proportion of community members who speak the indigenous language (Hallett, Chandler, & Lalonde, 2007). However, the relationship between culture and psychosocial wellbeing is often complicated. Research among indigenous Australians found that strong identification with indigenous identity was associated with better mental health in rural regions but more distress in urban areas, which the authors attribute to discrimination and challenges navigating two distinct cultures (Dockery, 2012). Researchers have documented tensions with changing lifestyles and navigating "both worlds" in terms of the time demands of work and participating in cultural activities (Yap & Yu 2016).

Indigenous communities in Guatemala have faced a long history of suppression of their autonomy, cultural traditions, and forms of spirituality, beginning with colonial policies that actively undermined community structure and ways of life (Turner & Luna Sánchez, 2020). This was compounded by a prolonged period of oppression of indigenous people in Guatemala during the armed conflict, as described in a report by the Commission for Historical Clarification (1999):

> Militarization of the communities disturbed the cycle of celebrations and ceremonies, and concealment of their rituals became progressively more widespread. Aggression was directed against elements of profound symbolic significance for the Mayan culture, as in the case of the destruction of corn and the killing of their elders. These events had a serious

> impact on certain elements of Mayan identity and disturbed the transmission of their culture from generation to generation. (p. 30)

Moreover, traditional authority structures were often supplanted by military forces during the armed conflict, damaging the autonomy and cohesion of many indigenous communities (Commission for Historical Clarification, 1999). Scholars have also noted that ongoing discrimination and structural disadvantage in the post-war period often discourage indigenous people in Guatemala from embracing indigenous language and cultural traditions (Escobar-Chew, 2013; Vanthuyne, 2009).

While research on the relationship between cultural continuity and indigenous wellbeing in Latin America is sparse, findings from the region are consistent with the claim that cultural connection promotes wellbeing. A study in Chiapas, Mexico, found that stronger connection to ethnic identity was associated with higher self-esteem among indigenous university students, but not among mestizo students (non-indigenous by self-identification) (Guitart, Damián, & Daniel, 2011). Ethnographic research among the indigenous Mapuche in Chile suggests that the declining authority of community leaders and disconnection from customs around culturally sanctioned alcohol use (for specific uses and in limited quantities) have contributed to a proliferation of alcohol problems (Garcés & Zambrano, 2019; Zambrano, Muñoz, Caro, Fonseca, & Mellado, 2018). One cross-sectional study in the western highlands of Guatemala found that among those whose parents spoke an indigenous language (suggesting indigenous heritage), those who did not speak an indigenous language themselves demonstrated elevated rates of suicidality—consistent with the hypothesis that language and culture loss lead to poor mental health (Pezzia & Hernandez, 2021). However, the cross-sectional nature of the studies by Guitart et al. (2011) and Pezzia and Hernandez (2021) makes causal inference difficult.

Discrimination

Experiences of discrimination range from systemic to interpersonal and internalized, and all have been widely recognized as important determinants of health inequities experienced by indigenous people (Paradies, 2018). Systemic forms of discrimination in Guatemala include historical policies aimed to exploit indigenous populations for cheap labor, state-led violence meant to disrupt land reforms, and neoliberal policies that promote the economic interests of large corporations, while ravaging local natural resources and disrupting community livelihoods (Benson et al., 2008; Caxaj et al., 2014). The ramifications of these systemic injustices can be seen in the disproportionately high rates of poverty and ill health affecting indigenous populations in Guatemala. Structural racism lies at the root of many of the proximal determinants of health (violence, poverty, family cohesion, cultural continuity).

Spanning both interpersonal and structural dimensions of discrimination, systemic discrimination in healthcare is also an important determinant of indigenous wellbeing. Incayawar and Maldonado-Bouchard (2009) and Maldonado-Bouchard, Bouchard, and Incayawar (2015) document the ways that indigenous perspectives and forms of healing are systematically excluded from mental health services in Latin America. In Guatemala, Hinojosa (2004) documents how required didactic trainings for traditional midwives—who attend to women before, during and after childbirth—discourage traditional birthing practices (birth positions, use of steam bath, spiritual dimensions of midwifery), undermine traditional knowledge, and promote a view of the biomedical model as the only approach to perinatal care. Research in Guatemala has also documented the widespread experience of discrimination among indigenous populations when accessing public health care, including failure to accommodate patients who don’t speak Spanish,

insults, neglect, and failure to inform patients or seek consent before performing medical procedures (Cerón et al., 2016; Ruano, Sánchez, Jerez, & Flores, 2014).

Interpersonal discrimination in settings beyond healthcare is also associated with worse mental health among indigenous populations (Paradies, 2018). Research among indigenous Australians documented experiences of interpersonal racism leading to increased depression symptomology and found that the association is partially mediated by stress, feelings of shame and feelings of powerlessness (Paradies & Cunningham, 2012). Indigenous men in both Canada and Australia have identified specific forms of interpersonal discrimination targeting their intersectional identities as indigenous males; they have described the personal experience of racism and the internalization of racist stereotypes about indigenous men as having a deleterious effect on their health and wellbeing (McCabe, Mellor, Ricciardelli, Mussap, & Hallford, 2016; Waddell et al., 2021). Scholars have noted that ongoing interpersonal discrimination and structural disadvantage for indigenous people in Guatemala discourage them from embracing indigenous language and cultural traditions in many contexts (Pezzia, 2013; Vanthuyne, 2009).

Gender roles and attitudes

While gender is recognized as an important determinant of health (WHO Commission on Social Determinants of Health, 2008), research and policy has tended to focus on how gender inequalities negatively impact the health of women (Bates, Hankivsky, & Springer, 2009; Phillips, 2005). Research has focused on the role of men's inequitable gender attitudes as a risk factor for gender-based violence (Fleming et al., 2015; Fulu, Jewkes, Roselli, & Garcia-Moreno, 2013; Jewkes, Fulu, Roselli, & Garcia-Moreno, 2013). Relatively little research has focused on the negative impact of gender norms on the mental health of men and boys (Rice et al., 2021). Social scientists theorize that hegemonic masculinity—"the idealized form of masculinity at a given place and time… that

subordinates femininities as well as other forms of masculinity" (Courtenay, 2000, p. 1388)—negatively influences men's wellbeing, as efforts to construct strength and dominance often lead to self-harm. This is thought to be particularly true among men whose ethnicity, sexual orientation, or socioeconomic status limits opportunities to construct power and dominance other than through violence, substance use or other behaviors with high risk for harm (Courtenay, 2000). This hypothesis is supported by research with Latino men in the US, which finds that experiences of discrimination are associated with increased feelings of powerlessness, which are in turn associated with attitudes supporting traditional forms of harmful *machismo* (endorsement of violence, control of women) (Hendy, Can, & Heep, 2021). Nevertheless, research has also found that attitudes supporting *caballerismo (chivalry* or Latino male gender norms that encourage honor, respect, and protecting one's family) are associated with higher life satisfaction (Arciniega, Anderson, Tovar-Blank, & Tracey, 2008) and self-esteem (Ojeda & Piña-Watson, 2014) among Latino men living in the US.

International studies have found a positive association between men's endorsement of inequitable gender norms and alcohol use (Barker et al., 2011; Mahalik, Lagan, & Morrison, 2006). Not conforming to masculine gender norms that encourage aggression and suppression of feelings has been associated with better mental health (Way et al., 2014). A study of marginalized young men in South Africa found that two factors thought to stem from inequitable gender norms—use of controlling behaviors in relationships and shame about lack of work—were associated with depressive symptomology (Gibbs, Govender, & Jewkes, 2016).

Very little research has explored the specific intersection of masculine gender norms and indigenous wellbeing in Guatemala or elsewhere (George et al., 2019; Rice et al., 2021). Australian scholars describe how generations of indigenous men in Australia have been robbed of their

traditional role as authority figures and marginalized by the settler society, leaving then unable to live up to either traditional or colonial notions of what it meant to be a man; traditional initiation ceremonies that symbolized becoming a man were suppressed and structural inequalities limited indigenous men's abilities to fill the role of economic providers (Reilly & Rees, 2018; Thomson, Midford, Debuyst, & MacRae, 2010). Low self-esteem resulting from these conditions is thought to play a role in generating the elevated rates of substance use and violence found among indigenous populations today, which, in turn, are thought to create problematic norms for what it means to be a man among younger generations of indigenous boys who lack positive male role models (Reilly & Rees, 2018; Thomson et al., 2010). Qualitative research with indigenous men in Canada highlights the harmful influence of internalized racist stereotypes about indigenous men on their self-esteem, substance use and violence (Waddell et al., 2021). Indigenous men in Canada have identified how pressure to conform with Western masculinities encouraged them to suppress their emotions and avoid help-seeking. They expressed a need to "reclaim Indigenous masculinities and ceremony" through social supports and cultural role models in order to express the emotions and tell the stories that they felt were needed to heal their past traumas (Waddell et al., 2021, p. 4). Indigenous men in Canada and Australia have also identified traditional roles for men as community leaders and role models and the importance of fatherhood as a motivational factor for working to improve their physical health and emotional health (McCabe et al., 2016; Waddell et al., 2021).

There is also a dearth of research on gender norms and men's wellbeing in Latin American. Within the research on gender norms in Latin America, there has been a focus on "discovering a ubiquitous, virulent, and 'typically Latin' machismo among men from these areas," which ultimately perpetuates a monolithic view of Latin American men as aggressive and violent toward

women (Gutmann & Vigoya, 2005, p. 123). Notions of *machismo* emphasize aggression, violence, sexual prowess, and power over women, but scholars have argued the need to recognize multiple masculinities within Latin America's diverse contexts (Ajcalon Choy, 2014; Gutmann & Vigoya, 2005). Research in Guatemala suggests that indigenous communities have historically held more egalitarian gender roles than their non-indigenous counterparts, which is attributed to lifestyles associated with subsistence agriculture (Ehlers, 1991; Foxen, 2007). However, it is argued that 500 years of colonial rule and the associated imposition of patriarchal systems; civil war; government policies; social exclusion; globalization; and a decrease in land ownership and subsistence agriculture among indigenous peoples in Guatemala have created corresponding shifts in gender roles (Ehlers, 1991; Foxen, 2007, 2010). The forced engagement of indigenous men in civil defense patrols during the civil war—which widely used rape and other forms of violence to instill fear in the population—is one example of how historical events have shaped men's roles and relationships with women. Other scholars have emphasized the existence of gender inequalities predating colonization and have called into question a tendency "to romanticize and idealize the Mayan and Aztec culture, portraying them as genuine cultures of gender equity" (Ajcalon Choy, 2014, p. 30). What is clear is that there are a multitude of influences on gender norms in Guatemala today, including the Mayan cosmovision, Hispanic culture, Catholic and Evangelical churches, increasing access to wage economies and economic migration of family members, and social norms in the host countries of migrant workers (Ajcalon Choy, 2014; Hershberg & Lykes, 2019; Metz & Webb, 2014). Recent research has also highlighted the flexibility of gender norms in the face of changing circumstances (Metz & Webb, 2014). Hershberg and Lykes (2019) describe how men in transnational families (sons in Guatemala and fathers who have immigrated to the US) participate in caregiving practices beyond the typical role

of breadwinners and that their participation in these caregiving practices contributes to their own wellbeing and the wellbeing of their family members.

Chapters 3 and 4 aim to build on the published research literature on determinants of wellbeing by exploring the views of communities themselves about the factors that influence men's wellbeing. I apply an intersectional lens to explore the unique experiences and factors that influence the wellbeing of indigenous men in Guatemala.

Community-based mental health promotion

Mental health promotion and primary prevention interventions recognize the important influence of social and structural conditions on mental health outcomes. They are defined as follows:

> Mental health promotion is concerned with promoting positive mental health and employs intersectoral strategies for strengthening protective factors and enabling access to resources and supportive environments that will keep individuals and populations mentally healthy. Prevention aims to reduce the incidence, prevalence or seriousness of targeted mental health problems, such as depression, anxiety, and suicide. (Barry, 2014, p. 4)

Lund (2020) suggests "intervention research on prevention and mental health promotion interventions, especially targeting the social determinants of mental health" is among the top priorities for global mental health research in the coming years (p. 2). The focus on mental health promotion can be seen as complementary to interventions that target secondary and tertiary prevention and treatment for individuals suffering from severe forms of mental illness. This is rooted in the hypothesis that addressing the upstream social and structural factors that influence the development of mental health problems will not only improve quality of life and wellbeing for whole populations, but also reduce the need for treatment services that are likely to require greater costs and more specialized providers (Miller & Rasmussen, 2010).

Programs and research targeting poverty reduction, such as cash transfers (payments made directly to individuals or households) and microfinance interventions (including savings and loan groups and other structures to increase access to small loans), have arisen from recognition of poverty and food insecurity as key determinants of health and wellbeing. A recent review of cash transfer interventions found significant improvements on measures of mental health and subjective wellbeing across studies, including reductions in depression and psychological distress and improvements in happiness and life satisfaction (McGuire, Kaiser, & Bach-Mortensen, 2020). The review also found larger effect sizes for unconditional cash transfers compared to conditional cash transfers, which typically require recipients to meet certain requirements, such as participation in educational workshops or preventive healthcare (McGuire et al., 2020). Microcredit and microfinance interventions, which have primarily targeted women, aim to reduce poverty, but also include components that address other recognized determinants of psychosocial wellbeing, such as social support. Cross-sectional studies of women's participation in microfinance and microcredit interventions have documented better psychosocial outcomes among those with longer periods of participation, including reduced depression symptoms, reduced emotional stress, increased perceived control over life circumstances, and greater social support (Hamad & Fernald, 2015; Mohindra, Haddad, & Narayana, 2008). However, the cross-sectional nature of these studies makes them inconclusive in terms of causal inference. A randomized controlled trial (RCT) of a microfinance intervention targeting AIDS orphans in schools in Uganda documented improvements in self-esteem and depression symptoms (Ssewamala, Neilands, Waldfogel, & Ismayilova, 2012). However, ethnographic research highlights the possible adverse outcomes of microcredit schemes, including increasing debt, social pressure to repay loans, and negative material and social consequences when debt can't be repaid (Hayes, 2017; Karim, 2011).

Recognition that many mental disorders develop early in life, combined with the relative ease of reaching large segments of the population through schools, has translated to a proliferation of mental health promotion and primary prevention interventions targeting young people in school settings. A 2014 review of mental health interventions for young people in LMICs concluded there was moderate to strong evidence for several school-based mental health promotion interventions implemented by trained schoolteachers (Barry, Clarke, Jenkins, & Patel, 2013). Most include a curriculum that aims to develop young peoples' "life skills," which include a combination of problem-solving, decision-making, coping, stress management, communication, and interpersonal skills (Barry et al., 2013). Like skills interventions targeting young people in LMICs have included both cultural adaptation of interventions with evidence of impact in high-resource settings (De Villiers & Van den Berg, 2012) as well as locally developed approaches (Srikala & Kishore, 2010). Both approaches have been associated with improvements in psychosocial wellbeing, including improvements in self-esteem, self-efficacy, coping skills, pro-social behavior, and classroom behavior in India (Srikala & Kishore, 2010); and emotional regulation and self-appraisal in South Africa (De Villiers & Van den Berg, 2012). Other school-based interventions, including interventions to promote physical activity (Bonhauser et al., 2005) and after school programs that engage youth in recreational activities (Loughry et al., 2006) have also been found to improve psychosocial outcomes in LMICs. Universal school based mental health promotion interventions, also referred to as whole school approaches, that aim to promote mental health through a range of school policies, support systems, staff training, parent involvement and integration of social and emotional learning throughout the curriculum have gained in popularity and have the support of governments in high-income countries (O'Reilly, Svirydzenka, Adams, & Dogra, 2018). Research documents positive psychosocial outcomes, including improvements on measures of resilience,

sense of wellbeing, and academic performance, and reductions in peer problems, internalizing and externalizing behaviors (O'Reilly et al., 2018). Nevertheless, implementation challenges have been noted, with not all programs demonstrating success (O'Reilly et al., 2018). A recent review of implementation of universal school based mental health promotion interventions in LMICs concluded that the low quality of studies made it difficult to draw conclusions about effectiveness of these approaches for reducing anxiety and depression symptoms (Bradshaw et al., 2021).

There is strong evidence to support mental health promotion at the community level through programs that focus on parenting and family relationships (Barry et al., 2013). One of the most widely evaluated programs, the *Strengthening Families* program, focuses on improving parenting skills (i.e., authoritative parenting), parent-child communication, and family bonds, and has a strong evidence base for mental health promotion and primary prevention in the US (Kumpfer & Magalhães, 2018). RCTs of the *Strengthening Families* program in the US have documented significant reductions in substance use, depression, and anxiety when youth participants are followed over 10 years (Kumpfer & Magalhães, 2018). The *Strengthening Families* program has been culturally adapted for minority groups in the US and implemented internationally. Evaluations of cultural adaptations in the US suggest similar impacts on psychosocial outcomes with increased recruitment and retention compared to non-adapted versions (Kumpfer, Alvarado, Smith, & Bellamy, 2002). An adapted version of the program, *Familias Fuertes* (strong families in Spanish), has been widely implemented and evaluated in Latin America, albeit with small sample sizes and primarily non-randomized designs (Mejía et al., 2020). One RCT of the *Familias Fuertes* program in Honduras found evidence of improvements in positive parenting practices, parental self-esteem, and family closeness, but found no evidence of reductions in substance use—the original aim of the program (Vasquez et al., 2010).

A 2017 scoping review of interventions specifically to promote adult men's mental health identified 25 studies that presented evaluation data for interventions targeting men or evaluations disaggregated by gender (Seaton et al., 2017). Most interventions targeted stress reduction through psychoeducation or interventions rooted in cognitive behavior therapy (CBT). Many of these found improvements in men's psychosocial outcomes (Seaton et al., 2017), including reductions in stress across multiple RCTs (Limm et al., 2011; Nickel et al., 2007). Also common among intervention approaches was a focus on physical exercise (Seaton et al., 2017); multiple RCTs of exercise-based programs—alone or in combination with CBT components—have found improvements in men's psychosocial outcomes, including depression symptoms (Battaglia et al., 2015; McGale, McArdle, & Gaffney, 2011). Interventions based on yoga practice have also found reductions in men's stress, anxiety and depression symptoms and improvements in men's positive affect (Bilderbeck, Farias, Brazil, Jakobowitz, & Wikholm, 2013; Rocha et al., 2012).

Notably, only six of the interventions included in the review by Seaton et al. (2017) were deemed "gender-sensitive" based on the definition of Barker, Ricardo, Nascimento, and Organization (2007, p. 4): "approaches that recognize the specific needs and realities of men based on the social construction of gender roles." These gender-sensitive approaches often incorporated sports in conjunction with CBT or psychoeducation and found improvements in men's psychosocial outcomes (Cooper, Stringer, Howes, & Norton, 2015; McArdle, McGale, & Gaffney, 2012; McGale et al., 2011; Robinson, Robertson, Steen, Raine, & Day, 2015; Seaton et al., 2017). Among gender-sensitive approaches, qualitative evidence also supports *Men's Sheds*, which provide community spaces for men to socialize, engage in recreational activities, learn new skills, and access health information, for reducing social isolation, increasing self-esteem, and increasing sense of purpose, primarily among older men (Fildes, Cass, Wallner, & Owen, 2010; Milligan et

al., 2013). Only one study included in the review by Seaton et al. (2017) actively sought to encourage men's questioning of gender norms as a strategy for mental health promotion and documented some preliminary positive results (Primack, Addis, Syzdek, & Miller, 2010). A 2019 systematic review of interventions to promote young men's mental health identified 40 studies that targeted males aged 12-25 or that presented data for that age group disaggregated by gender (Gwyther, Swann, Casey, Purcell, & Rice, 2019). Findings were similar to the review by Seaton et al. (2017) in that a minority of studies evaluated gender-sensitive approaches, and even fewer (four studies) evaluated interventions that were deemed 'gender transformative,' or aimed 'to transform gender roles and promote more gender-equitable relationships between men and women' (Barker et al., 2007, p. 4) (Gwyther et al., 2019). Among gender-transformative mental health promotion approaches targeting young men, only one assessed quantitative outcomes and found pre-post improvements in self-efficacy, but no changes in gender attitudes (Gwyther et al., 2019; Liddell & Kurpius, 2014). *Stepping Stones*, an intervention developed to reduce HIV and IPV in South Africa, that engages men in critical reflection on gender norms and attitudes, reduced men's alcohol use when implemented alone (Jewkes et al., 2008) and depression, when implemented in conjunction with *Creating Futures*, an intervention that uses participatory learning strategies to promote livelihoods skills (Jewkes et al., 2014). However, the multi-faceted nature of the intervention makes it difficult to attribute improvements in psychosocial health to the gender transformative components.

RCTs of mental health interventions have rarely included indigenous participants (Polo et al., 2019), and rigorous evaluations of interventions tailored to indigenous populations are lacking (Clelland, Gould, & Parker, 2007; Whitbeck, Walls, & Welch, 2012). Transferring evidence-based interventions developed for other populations to promote mental health in indigenous populations

fails to account for the role of colonization and oppression of indigenous peoples as key detractors from indigenous wellbeing and may overlook culture and local forms of coping as important sources of wellbeing. For example, cash transfer interventions might undermine traditional livelihoods, life skills programs may emphasize individual rather than collective forms of coping, and family-based interventions have the potential to impose mainstream cultural values in terms of family structures and parenting styles (Whitbeck et al., 2012). For example, the *Strengthening Families* program is geared toward nuclear families, which may be less relevant in indigenous communities where extended kinship systems play a key role in daily lives (Kirmayer et al., 2003). Scholars have argued that promoting community autonomy and connection to indigenous culture must be central to mental health promotion in indigenous contexts (Dudgeon, Bray, D'costa, & Walker, 2017; Gone & Calf Looking, 2011; Kral & Idlout, 2009).

Mental health and wellbeing promotion interventions in indigenous contexts

To address the shortcomings of standardized evidence-based interventions for use in indigenous contexts, researchers have opted for two distinct approaches—a) cultural adaptation of existing interventions and b) development of local interventions that place indigenous culture at their core. Some scholars have argued that a culturally grounded approach is necessary for mental health promotion in indigenous communities because the current evidence base does not address the unique social determinants of mental health in indigenous contexts (Gone & Calf Looking, 2015; Kral & Idlout, 2009; Okamoto et al., 2014). The participatory process of designing culturally grounded interventions is also thought to promote mental health by contributing to individuals' and communities' sense of control over their lives (Kral & Idlout, 2009). A high sense of control is recognized to protect against mental illness across income levels and ethnic groups in the US (Kiecolt, Hughes, & Keith, 2009).

Okamoto et al. (2014) describe a spectrum of approaches to integrating local culture into evidence-based interventions, from basic surface-structure adaptations (i.e., using local language, images) to deep-structure cultural adaptation that involves integration of elements of indigenous culture, language, knowledge, and values. There are several examples of life skills programs tailored for indigenous youth, that include a focus on problem solving, communication, and coping skills, while also integrating program content focused on indigenous values and cultural practices. The *Zuni Life Skills* program, tailored to teach indigenous youth social and cognitive skills while incorporating Zuni cultural norms, values, communication styles, and local histories, has been found to reduce hopelessness and suicidal ideation among indigenous Zuni youth (LaFromboise & Howard-Pitney, 1994). Similarly, the *Culturally Grounded Life Skills for Youth Curriculum*, which was developed in partnership with Suquamish and Port Gamble S'Klallam Tribes in the Pacific Northwest of the US integrates local metaphors (canoe journey), cultural values and practices, and community connection with problem solving, goal setting, emotional regulation skills, and information about substance use. Pre/post evaluation of the intervention documented improvements on a scale that measured hope, optimism, and agency (Donovan et al., 2015). Youth mentoring programs have also been culturally adapted for First Nations, Métis, and Inuit youth in Canada, but findings of one longitudinal evaluation found only girls participating in the program experienced significant improvements in positive mental health (Crooks, Exner-Cortens, Burm, Lapointe, & Chiodo, 2017). Kirmayer et al. (2016) and Ivanich, Mousseau, Walls, Whitbeck, and Whitesell (2020) describe extensive processes for adapting the *Strengthening Families* program for indigenous youth and their families in the US and Canada. Initial findings suggest that a cultural adapted version of the program can reduce youth distress and promote cultural identity, self-esteem, family communication, parenting skills, and social connections within families and the

broader community (Kirmayer et al., 2016), but rigorous evaluations are lacking. Kirmayer et al. (2016) suggest that the lengthy process of cultural adaptation can incorporate cultural connection as an important aspect of mental health promotion and generate community ownership.

Others have taken the approach of designing interventions from the ground up in partnership with indigenous communities, with the aim of maximizing local cultural strengths and community control (Cwik et al., 2019; A. Hunter et al., 2022; A. M. Hunter et al., 2020). Culturally grounded interventions "place the culture of the participant at the center of the intervention" and "build on values, beliefs, practices, and socio-historical perspectives of the targeted population, which form the core of the intervention strategies" (Okamoto et al., 2014, p. 9). In North America, researchers have piloted indigenous "culture camps" that focus on learning traditional knowledge, values, and activities as a strategy for youth mental health promotion (Barnett, Schmidt, Trainor, & Wexler, 2020) and substance use treatment (Gone & Calf Looking, 2015). While rigorous evaluations (RCTs) are lacking, one pre-post evaluation of a 5-day culture camp for Alaska Native youth found improvements in self-assessed mood, feelings of belongingness and coping skills (Barnett et al., 2020). Culturally grounded approaches have also been implemented in after school programs for youth (Carlos, Muniz, & Lameman, 2022). A mixed methods pre/post evaluation of the *Native Spirit* after school program found significant increases in connection to cultural identity and non-significant increases in self-esteem and resilience, while qualitative findings emphasized how learning about native culture led to improvements in self-esteem and strategies for stress relief (Carlos et al., 2022). A culturally grounded intervention developed with Yup'ik communities in Alaska that emphasized teaching about native culture as a strategy for preventing alcohol use disorders and suicide found improvements among youth on the Reasons for Life scale, a culturally adapted version of the Reasons for Living Inventory, which measured "culture-specific beliefs and

experiences that make life enjoyable and worthwhile within a rural Yup'ik context" (Allen, Rasmus, Fok, Charles, & Henry, 2018, p. 178). Evaluation of the intervention compared a community with a higher dose of implementation to a community with a lower dose of implementation, and assignment to dose was not randomized. Results provide preliminary support for the notion that strengths-based interventions that place indigenous culture at their core can influence important risk factors for psychosocial distress and youth suicide. In another example, evaluation of the *Lumbee Right of Passage (LROP)* intervention, developed in partnership with the Lumbee indigenous people of North Carolina (US), found a non-significant reduction in youth suicidal ideation between pre- and post-test (Langdon et al., 2016). Cwik et al. (2019) describe the development of an intervention by indigenous Apache Elders to teach youth about traditional values and culture through a curriculum delivered in middle schools, although the intervention has not yet been evaluated.

In Guatemala, Chomat et al. (2019) described a process of partnering with local Mam indigenous women leaders to co-design a psychosocial intervention to address maternal mental health concerns, which led to implementation of a *Women's Circles* intervention that incorporated "games (dinámicas), art-based methods (drawing, role play, music) and group psychosocial therapy (active listening, emotion management, breathing and relaxation exercises, problem solving, popular education) to build trust, self-esteem, and social cohesion" (p. 2). While the intervention was not designed to promote cultural connection, per se, it emphasized cultural safety through implementation by local *comadronas* (Mayan traditional midwives) and local input in the intervention design process. Pilot implementation of the intervention documented improvements in women's reports of wellbeing and self-efficacy in self-care (Chomat et al., 2019).

Very few mental health promotion interventions have been developed or tested specifically for indigenous boys or men. Only two evaluations of interventions targeting indigenous men were identified in the review by Gwyther et al. (2019) and none in the review by Seaton et al. (2017). Of the two studies identified by Gwyther et al. (2019), one reported short-term increases on a measure of resilience immediately after participation in an outdoor adventure leadership program that were not sustained at one year (Ritchie, Wabano, Russell, Enosse, & Young, 2014), and the other found that only girls had significant improvements in psychosocial outcomes as a result of participation in a culturally tailored mentorship program (Crooks et al., 2017). The *Family Wellbeing* empowerment program was originally designed by a group of indigenous people in Australia and has since been adapted to multiple contexts using participatory research (Tsey et al., 2007). The program aims to "help people become personally empowered with social cohesion and community connectedness, and therefore more able to meaningfully engage with structural empowerment processes mediated by community-controlled organizations and other advocacy initiatives" (Tsey et al., 2007, pp. S35-S36). While the program was not developed specifically for men, a recent implementation of the program with a group of young indigenous men found significant reductions in psychological distress between pre- and post-intervention time points (Whiteside et al., 2016). Qualitative evaluation of the program supports its effectiveness for improving participants' sense of control, social relationships, and wellbeing (Whiteside et al., 2016). However, more rigorous evaluations (RCTs) of the *Family Wellbeing* empowerment program are lacking. Richards et al. (2021) describes development of an intervention specifically for indigenous fathers, *Azhe'é Bidziil* (Strong Fathers), that includes both culturally adapted elements of three evidence-based interventions, as well as elements rooted in local cultural teachings. The intervention aims to promote positive parenting, healthy relationships, cultural

connection, and economic stability. Fostering the resurgence of Native gender systems, through reflection on traditional Diné gender roles, parenting and kinship support, and reflecting on the harmful effects of colonization are hypothesized to be important mechanisms of impact on psychosocial outcomes, but the pilot study has yet to be evaluated (Richards et al., 2021).

There is a growing body of research on indigenous men's groups, primarily in Australia, which serve as spaces for men to connect with other men and engage in participatory learning and action. Qualitative research suggests that indigenous men's groups can improve social connections, connection to cultural identity and subjective wellbeing, as well as foster participants' sense of empowerment and control over their lives and health (McCalman et al., 2010). A program evaluation of *The DUDES Club,* a men's group intervention targeting primarily middle-aged indigenous men in Vancouver, Canada found promising self-rated improvements in trust, social support, quality of life, and physical and mental health, although evaluation was limited by lack of a control group and lack of a validated mental health assessment tool (Gross et al., 2016). Indigenous men's groups have tackled issues such as domestic violence, unemployment, and overrepresentation in the criminal justice system, but the impacts of men's groups on psychosocial and behavioral outcomes have not been rigorously evaluated (McCalman et al., 2010). To my knowledge, no research has evaluated men's groups for indigenous populations in Latin America.

Dialogic interventions to promote mental health and wellbeing

Scholars suggest that a key benefit of both deep cultural adaptation and culturally grounded intervention approaches comes from the process of engaging communities in the planning and adaptation of interventions. Beyond the long-term goal of increasing the relevance of interventions, community participation in intervention development is thought to have mental health benefits by allowing participants to build social connections and a sense of empowerment

and control (Camfield, Crivello, & Woodhead, 2009; McCarthy & Marks, 2010; Riecken, Scott, & Tanaka, 2006). Community engagement in intervention planning is argued to be particularly important when conducting research with disenfranchised populations, in which oppression of culture and autonomy are major causes of suffering (Kirmayer et al., 2003; McCarthy & Marks, 2010). Group dialogic interventions, which frame deliberation around community priorities and planning of strategies to address those priorities as an intervention in and of itself, offer an approach to operationalizing the participatory engagement process. Dialogic interventions hold promise for creating the 'safe social spaces' that have been identified as one of four key competencies for community mental health though facilitating 'a sense of local community ownership and responsibility for good mental health,' as well as 'confident recognition of local individual and group-based skills as contributing to such efforts' (Campbell & Burgess, 2012, p. 390).

Dialogic interventions, sometimes labeled "community conversations" (Campbell et al., 2013), seek to address the social and structural conditions underlying health disparities through group deliberation, priority setting, problem solving and locally authored actions. Dialogic interventions are guided by the principles of popular education (Freire, 1970; Wiggins, 2012) and are understood in contrast with top-down, didactic approaches to health education (Wexler et al., 2017). Dialogic interventions emphasize peer-to-peer learning, promotion of critical thinking skills, and engagement in a continuous cycle of reflection and action. Some dialogic interventions target the modest goals of health behavior and social norm change. Others purport to tackle social and structural inequities through the fostering of critical consciousness—awareness of forces of oppression and actions to address them (Wallerstein et al., 2017; Wiggins, 2012). Dialogic interventions vary in their focus and the degree to which dialogue topics are predetermined. They

have been used to tackle a range of health topics, including HIV prevention and support for people living with HIV in Zimbabwe (Campbell et al., 2013) and dengue prevention in Nicaragua and Mexico (Andersson et al., 2015). Dialogic interventions have been most widely studied as a strategy for maternal and newborn health promotion across Asia and Africa, where they have been found to reduce both maternal and neonatal mortality (Prost et al., 2013). Dialogic interventions vary in regard to the inputs used to generate group dialogue, with some relying on presentation of research evidence (Andersson et al., 2015; Wexler et al., 2019) or externally created media content (Tripathy et al., 2016) and others relying less on external inputs (Campbell et al., 2013). A cluster RCT of participatory women's groups engaged in addressing maternal and newborn health found a reduction in moderate maternal depression in the intervention compared to control clusters (Tripathy et al., 2010). The authors hypothesized that increases in social support and problem-solving skills were responsible for reducing the risk of depression. Notably, many participatory women's group interventions, including the intervention described by Tripathy et al. (2010), rely on stories and visuals meant to elicit reflection around care-seeking and delivery practices—priorities set by external funders and researcher—which may be less likely to promote critical consciousness around forces of oppression (i.e., discrimination in healthcare settings) or culturally grounded solutions (i.e., local practices that promote culturally safe birth).

While dialogic interventions aim to address many of the upstream determinants of mental health and wellbeing, there is sparse evidence for their use as a strategy for mental health promotion. Wexler et al. (2019) describe a dialogic intervention— *Promoting Community Conversations About Research to End Suicide (PC CARES)*—implemented to address suicide in rural Alaska Native communities. In the intervention, local facilitators shared research evidence around suicide prevention with community groups, who were encouraged to critically discuss the

relevance of research evidence and plan preventive actions (Wexler et al., 2019). An evaluation of a pilot study of *PC CARES* documented increased behaviors related to suicide prevention among participants and their close associates compared to non-participants (Wexler et al., 2019). Michael et al. (2008) report on a community-based health promotion intervention spanning several African American and Latino communities in the US—*Poder es Salud/Power for Health*, in which Community Health Workers were trained using Freirian popular education, and then used methods of their choice to identify community health priorities and select appropriate local intervention strategies. They found post-intervention improvement in social support, self-rated physical health, and depression symptoms in the communities where the intervention was implemented (Michael et al., 2008). However, lack of a comparison group and lack of process evaluation data make it difficult to ascertain whether the intervention was responsible for the reported changes and, if so, how that change was generated.

There are limited examples of the psychosocial impacts of interventions rooted in community dialogue. To the best of my knowledge, no studies have explored the use of a dialogic intervention model to promote wellbeing in Latin America. Moreover, a focus on impact evaluation has left a gap in knowledge around the mechanisms underlying the impact of community participation in dialogue groups (Van Belle et al., 2017). Chapter 5 will address this gap through a process evaluation of a dialogic intervention implemented in Guatemala.

CHAPTER 3. COMMUNITY VIEWS OF DETERMINANTS OF MEN'S WELLBEING IN GUATEMALA: A STUDY USING FUZZY COGNITIVE MAPPING

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Abstract

Objectives: Psychological distress among Indigenous men in post-conflict Guatemala has been linked to violence exposure, destruction of social support systems within families and communities, and structural inequities. We aimed to document how communities themselves understand men's wellbeing and the factors that influence men's wellbeing. **Methods**: Fuzzy Cognitive Mapping with 20 stakeholder groups in Santiago Atitlán and Cuilco, Guatemala

explored the meaning of men's wellbeing and factors that influence it. Mapping groups defined men's wellbeing in local terms. They identified the influences they understood to promote and detract from men's wellbeing. They mapped the pathways through which influences affect wellbeing and weighted the relative strength of pathways. The researchers used thematic analysis to group influences into 43 factors and used fuzzy transitive closure to calculate their net causal influence for each set of stakeholders. We compared perspectives of groups of adult men, adult women, and practitioners of Mayan medicine in Santiago Atitlán, with a primarily indigenous population, to groups in Cuilco, with a primarily non-indigenous population. We also compared perspectives across age groups in Santiago Atitlán. **Results**: Across regions, maps highlighted the importance of family and social relations, emotional distress, substance use and physical health for men's wellbeing. Basic resource insecurity and unemployment were top risk factors for men's wellbeing in maps from Cuilco but had both risk and protective influences on men's wellbeing in maps from Santiago Atitlán. A lack of resources was understood to limit formal schooling, which was linked to a loss of respect for customs and an increase in characteristics that would disrupt family and social harmony. **Conclusion**: Findings challenge the focus on scale up of individual biomedical interventions as the best strategy to reduce the burden of emotional distress in Guatemala and raise questions about standard development approaches that emphasize income generation and educational attainment.

Strengths and limitations of this study

- Fuzzy cognitive mapping (FCM) documented how local stakeholders in Guatemala understand men's wellbeing and the factors that promote or detract it; this perspective is generally lacking in health research.

- We compared stakeholder perspectives from two municipalities in Guatemala—one with a primarily Maya Tz'utujil population and one with a primarily ladino population, as well as the perspectives of distinct stakeholder groups within each municipality (men, women, *terapeutas Mayas/tradicionales*).
- The method allowed us to hear nuanced indigenous perspectives on key factors that influence wellbeing, including indigenous perspectives on income and formal schooling that challenge the assumptions of dominant development paradigms.
- FCM sought to model stakeholder understandings of causality but did not empirically test these relationships.
- FCM accesses culturally salient concepts that are readily discussed in a group setting; maps are not an exhaustive summary of all participant knowledge on a topic.

Introduction

Indigenous people from 22 different Mayan ethno-linguistic groups in Guatemala (International Work Group for Indigenous Affairs, n.d.) share a history of colonization, violence, and structural inequity. Beginning with Spanish colonization in 1524, indigenous Maya have been displaced from their land and exploited for labor, while their cultural identity, religion and community autonomy have been actively suppressed (Turner & Luna Sánchez, 2020). During the state-sponsored violence from 1960 to 1996, 200,000 civilians were killed, an estimated 83% of them Maya, and 440 Mayan villages destroyed (Commission for Historical Clarification, 1999). Wartime tactics also sowed distrust and ruptured social ties within families and communities, with lasting impact on indigenous communities' social cohesion (Anckermann et al., 2005; Foxen, 2010). Ongoing structural violence, including neoliberal policies that favor large international corporations (agriculture, clothing manufacture, mining) while increasing reliance on wage labor,

drive down prices and devastate natural resources, increasing the financial precarity of indigenous populations (Benson et al., 2008; Caxaj et al., 2014).

Research in Guatemala measuring psychosocial wellbeing is scarce and has focused on manifestations of psychosocial distress—including substance use, interpersonal violence, and suicidality. Epidemiological evidence links violence exposure during the armed conflict with elevated rates of substance use in the post-war period (Puac-Polanco et al., 2015). Ethnographic research highlights how widespread economic insecurity, social fragmentation, and lack of law enforcement in the post-war period have resulted in high rates of homicide (Benson et al., 2008), as well as widespread hopelessness, chronic fear, and poor self-esteem (Foxen, 2010; Sullivan, 2007). Adolescent suicide rates are on the rise in Guatemala (Kõlves & De Leo, 2016), despite likely underreporting of cases (Pezzia & Hernandez, 2021), and suicidality has been associated with reports of loneliness (Pengpid & Peltzer, 2019), male gender, indigenous language loss, experience of interpersonal violence, alcohol use disorder, anxiety, and depression (Pezzia & Hernandez, 2021).

Gender norms interact perniciously with structural inequalities to generate unique challenges to the psychosocial wellbeing of indigenous men (Cariou et al., 2015; Prehn & Ezzy, 2020). Marginalized men, whose ethnicity, sexual orientation, economic or educational status precludes them from enacting dominant forms of masculinity, have limited opportunities to construct power other than through harmful behaviors (Barker et al., 2011; Courtenay, 2000). In post-conflict settings and societies undergoing livelihood transitions, shifting gender roles associated with changes away from subsistence agriculture and loss of steady employment can damage men's self-esteem and increase the tendency to resort to domestic violence and alcohol use to reassert masculinity (Amuyunzu-Nyamongo & Francis, 2006; Gómez Alcaraz & García

Suárez, 2006). Alcohol use is the second leading risk factor for death and disability in Guatemala, and 12.4% of men in Guatemala report getting drunk in the past 30 days (Ministerio de Salud Pública y Asistencia Social (MSPAS) et al., 2016). Twenty-eight percent of women in Guatemala report lifetime experience of physical, sexual, or emotional violence – regardless of their ethnicity; this increases to 70% among those whose partner gets drunk regularly (Ministerio de Salud Pública y Asistencia Social (MSPAS) et al., 2016).

To address psychosocial distress in indigenous communities, scholars and indigenous groups have emphasized the need for interventions that are strengths-based (Bourke et al., 2010), locally authored (Kirmayer et al., 2009; Kral & Idlout, 2009), and rooted in indigenous cultural practices (Gone, 2013). Yet there exists limited research on how indigenous communities in Guatemala understand wellbeing or the factors that promote or detract from wellbeing. This context-specific research gap is coupled with a dearth of intersectional, strength-based research on indigenous men's health and wellbeing (Cariou et al., 2015; Smith et al., 2020). Systematizing local knowledge about factors that may protect indigenous men in Guatemala from psychosocial distress and associated harmful behaviors is an important step in promoting their health and that of their families.

Fuzzy Cognitive Mapping (FCM) is a useful tool to engage stakeholders in systematically identifying influences on an outcome, while supporting collective learning and decision making. It engages participants in identifying all influences that they understand to contribute to an outcome, making perceived causal pathways explicit and encouraging reflection on how multiple influences are inter-related (Özesmi & Özesmi, 2004). Researchers have used FCM extensively in the field of environmental management (Gray et al., 2015; Özesmi & Özesmi, 2004); its use in the health field is more recent. Researchers have used FCM to create visual representations of

indigenous knowledge of causes of diabetes and safe motherhood, as well as barriers and facilitators for HPV self-screening (Giles et al., 2008; Sarmiento et al., 2018; Tratt et al., 2020). However, to the best of our knowledge, no studies have reported the use of FCM to document indigenous knowledge of influences on psychosocial distress or wellbeing. We chose wellbeing as the central focus in our research to shift away from deficit-based research with indigenous communities toward a holistic, strengths-based understanding of indigenous people's psychosocial needs (Bourke et al., 2010; Kirmayer et al., 2009).

In this study, we used FCM to explore and systematize the knowledge of marginalized communities in Guatemala about the meaning of men's wellbeing and factors that influence men's wellbeing. We sought to compare perspectives from two geographic regions—one with a primarily indigenous population and another where a majority of the population identifies as non-indigenous. We also sought to compare perspectives of adult men, adult women, and practitioners of traditional medicine, as well as of groups of different ages (young adults, older adults).

Methods

Study Design and public involvement

Our research was part of a pilot intervention that engaged marginalized communities in Guatemala in planning strategies to promote wellbeing. The method of FCM helped to generate public involvement in defining wellbeing and prioritizing actions to promote wellbeing. It was the first step in engaging key stakeholders in the co-design process. The results presented here come from a synthesis of stakeholder maps. Individual stakeholder maps later formed the evidence base for community dialogues in which participants discussed the key influences on wellbeing and planned actions to improve wellbeing.

Setting

The research took place in two municipalities in Western Guatemala: Santiago Atitlan, Sololá, and Cuilco, Huehuetenango. Cuilco's population is almost entirely rural, while Santiago Atitlán contains a small urban center (total population <50,000) (Instituto Nacional de Estadística Guatemala, 2019). Both municipalities are located over 100 kilometers from the capital of Guatemala. The population of Santiago Atitlán is 97% indigenous, primarily from the Tz'utujil Maya ethnic group. The Tz'utujil people have retained a strong connection to indigenous cultural practices compared with other indigenous groups in Guatemala, due to their remote location and relative lack of colonial interest in the region (Carlsen, 2011). Nevertheless, sociocultural change is accelerating in recent years, due to the dynamics of globalization (Carlsen, 2011). In Cuilco, only 20% of the population identifies as indigenous, primarily from the Maya Mam ethnic group, while 80% identifies as ladino (Instituto Nacional de Estadística Guatemala, 2019). While the term ladino is used to imply non-indigenous status, ladino populations include individuals of mixed indigenous and European ancestry, as well as individuals with indigenous ancestry who have abandoned indigenous identity through a shift in language, dress, and cultural practices (Matthew, 2006).

Participants

Two communities in each municipality took part in the study (total participating communities = 4). Both communities in Cuilco were rural, each with populations less than 2,000. One community in Santiago Atitlán was rural (population 3,395) and one was urban (population 8,269). With the assistance of local health post staff and community authorities, local facilitators identified and invited a convenience sample of participants to attend mapping workshops with separate stakeholder groups, aiming for 7-10 participants per session. Recruitment took place in person. In

Santiago Atitlán, facilitators convened separate groups of young men, young women, adult men, adult women, older men, older women, and *Terapeutas Mayas* (traditional indigenous practitioners) in each community (14 groups total). In Cuilco, facilitators convened one group each of adult men, adult women and *Terapeutas tradicionales* per community (6 groups total). *Terapeutas Mayas* (as they are known in Santiago Atitlán) and *Terapeutas tradicionales* (as they are known in Cuilco) included *abuelas comadronas* (traditional midwives), *ajq'ij* (Mayan spiritual guides), and *terapeutas* (therapists) who use ancestral knowledge to treat common illnesses and/or accompany women in the period surrounding childbirth in their communities.

Data collection

Data collection took place from July to October of 2018. Most maps were created during a single meeting that lasted 2.5 to 4 hours, with some requiring completion at a second meeting. The mapping sessions took place at local health posts, in local community buildings, or at the facilitator's home. Local male facilitators (DPQ, BYL) with post-secondary education facilitated the mapping sessions in the local language (Spanish in Cuilco, Tz'utujil and Spanish in Santiago Atitlán). The female first author and a local female research assistant were present for some of the mapping session with women's groups and the male study coordinator was present for some sessions with men's groups. Some participants had children present during the sessions. The mapping protocol was pilot tested with local health workers prior to data collection. Facilitators first explained the purpose of the activity and asked participants for oral informed consent. The activity was introduced as part of a project that aimed to engage local community groups in promoting wellbeing in their communities. Facilitators approached participants individually to collect basic sociodemographic data, including age, marital status, occupation, highest education level, languages spoken and having children (yes/no). They then asked participants, as a group, to

(1) define what wellbeing meant for men in their community; (2) name the influences on men's wellbeing in their community (which the facilitator wrote on sticky notes and placed on a poster until all felt the list was exhaustive); (3) describe how each concept affected wellbeing—directly or indirectly through influence on another concept or concepts (the facilitator drew arrows on the poster to illustrate each of these relationships, as explained by participants); and (4) rank the strength of each connection on a scale of 1 to 5, with 5 representing the strongest influence and 1 representing the weakest, and with positive signs indicating positive (promotive) relationships and negative signs indicating negative (inhibitory) relationships. The outputs of the activity were twofold: definitions of men's wellbeing, and the maps themselves.

Analysis

*Definition of wellbeing***.** The first author used an inductive approach to thematic content analysis to categorize the concepts included in participant definitions of men's wellbeing. The analysis was informed by conversations with the local facilitators and study coordinator, as well as findings from a series of in-depth interviews with key informants in Santiago Atitlán.

*Fuzzy cognitive maps***.** The maps generated by stakeholders are a type of directed graph, whose properties can be analyzed using the tools of graph theory (Giles et al., 2008). To facilitate comparison of maps, we first conducted an inductive thematic content analysis of concepts included in the original maps. The first author, the study coordinator and the two local facilitators met over several days to discuss each concept in detail and merge into factors concepts that had identical or similar meanings but were expressed differently across maps. Through an iterative process of thematic analysis, concepts were further grouped until we reached consensus on a final set of 43 factors linked to the outcome of men's wellbeing. Each of the original maps was transformed into a factor map, replacing original concepts with corresponding factor names.

In order the compare the net causal influence of each factor on wellbeing across maps, we calculated the fuzzy transitive closure (TC) (Giles et al., 2008) for each map. TC calculates the influence of each factor on all other factors in a directed graph by identifying all pathways, both direct and indirect, between each set of factors. Each pathway is assigned the weight of the weakest connection along the pathway, and the value of the strongest (highest value) pathway becomes the final value assigned to the relationship between a set of factors. Positive and negative pathways are calculated separately and summed, so if a given map includes a pathway from (A) to (B) with a weight of +5 and another pathway from (A) to (B) with a weight of -5, the net causal influence of (A) on (B) will be 0. This analysis yielded the net causal influence of each factor on wellbeing for each map, which we normalized on a scale from -1 to 1. Finally, we calculated the combined net causal influence of each factor on wellbeing within each stakeholder group by averaging the TC values across all maps within a given stakeholder group. We refer to these as stakeholder maps. Table 3.1 displays the number of groups and individual participants included in the analysis of each stakeholder map. Table S3.1 provides a full list of factors and their descriptions.

Stakeholder group comparisons. We compared stakeholder maps from Santiago Atitlán (where most of the population identifies as indigenous) with maps from Cuilco (where a minority of the population identifies as indigenous) within each of the stakeholder groups—adult men, adult women and *Terapeutas Mayas/tradicionales*. We also compared stakeholder maps for adult men, adult women, and *Terapeutas Mayas/tradicionales* within each region, and maps of different age groups in Santiago Atitlán (young adults, adults, and older adults).

Reflexivity. Group facilitators (DPQ, BYL), who were also involved in analysis, were young men with higher education in social work, and had previous experience with health programming. One identifies as Maya Tz'utujil, lives and holds leadership roles in one of the

communities where data collection took place and participates in traditional weaving and community organizing. The other resides outside the communities where he facilitated mapping workshops. The first author is a white female PhD student from the United States, with academic training in indigenous mental health research and community based mental health interventions. The local study coordinator, who contributed to data analysis, is a Guatemalan medical doctor with many years of experience leading public health, development, and humanitarian aid projects in Guatemala and internationally. Our diverse experiences and worldviews contributed to deliberation around the coding of concepts included in the maps. We sought to find a balance between representing local understandings of how concepts fit together and using factor names that aligned with Western understandings of health, illness, and their social determinants. This was done with the goal of integrating our findings with international research.

Results

Participant characteristics

Table 3.2 shows demographic data for the groups of adult men, adult women and *terapeutas Mayas/tradicionales*. All participants in Santiago Atitlán spoke an indigenous language, but only a minority of participants in Cuilco. In Santiago Atitlán, where secondary analyses included comparisons by age, the average age of participants was 23 for young men, 25 for young women, 70 for older men and 64 for older women. More young adults were single (16/17), without children (16/17), and had at least primary schooling (16/17). No older participants had primary schooling.

Definition of wellbeing

Participant definitions of men's wellbeing from different stakeholder groups included 6 to 27 concepts. All groups included concepts pertaining to family and social relations or personal characteristics that would impact such relations, such as having family support, taking care of

family, getting along with neighbors, and being respectful and collaborative. Most groups also included concepts related to having a job, hard work and responsibility; emotional wellbeing and positive thoughts; and physical health and nutrition. Most groups in Cuilco, but only one group in Santiago Atitlán, included concepts related to sports and recreation. Many groups in Santiago Atitlán included concepts related to receiving or following advice from elders, and spirituality or religion, but these concepts rarely featured in Cuilco.

Structure of maps

Original maps of men's wellbeing contained 28 to 64 concepts and 65 to 146 connections. See figure 3.1 for an example of an original map created by adult men in Santiago Atitlán. The factor maps contained 15-31 factors and 49-93 connections. Most factors, across all maps, referred to individual-level characteristics or behaviors—such as low self-esteem, personal characteristics that negatively affect social harmony, substance use, or family-level influences—such as family separation and neglect, infidelity, and domestic violence. A few factors implied social or structural influences, such as harmful gender norms and unemployment.

Regional comparisons

Adult men. In both Cuilco and Santiago Atitlán, adult men ranked poor physical health, emotional distress, substance use, and factors related to family and social relations (infidelity; personal characteristics that negatively affect social harmony; lack of affectionate, trusting, supportive family relationships) among the most important factors threatening men's wellbeing (see table 3.3). There were some notable differences between the regions. Men's maps in Cuilco placed greater emphasis on low self-esteem and poor health promotive care practices, and Cuilco maps but not Santiago Atitlán maps identified harmful gender norms as a strong risk factor for men's wellbeing. Santiago Atitlán maps but not Cuilco maps identified lack of religious faith,

misuse of technology and "not respecting customs" as risk factors for men's wellbeing. "Not respecting customs" included specific values and cultural practices: "losing *Xjaan"* (loss of understanding that everything is sacred, which brings negative consequences when specific customs to respect the sacred are not followed) and "harmful interpretations of rights" (referring to human rights discourse that emphasizes individual rights over collective responsibilities). In both regions, basic resource insecurity was perceived as negatively influencing men's wellbeing (through increased emotional distress, poor health promotive care practices, poor physical health). However, in Santiago Atitlán, men's maps portrayed basic resource insecurity as also having a positive influence on wellbeing by limiting access to formal education. Lack of access to formal education was represented as reducing wellbeing in Cuilco maps, but as having a positive influence on wellbeing in Santiago Atitlán maps. Santiago Atitlán maps suggested that local men who do not access formal education may retain more respect for customs and may be less likely to develop character traits like arrogance and disrespect, which in turn would improve wellbeing. Key pathways between basic resource insecurity and men's wellbeing, as depicted by adult men in the two regions, are illustrated in figure 3.2. A full list of factor rankings is available in table S3.2.

Adult women. Adult women across both regions ranked poor physical health, emotional distress, substance use, excessive workload, and family-related factors (infidelity; lack of affectionate, trusting, supportive family relationships) among the top risk factors for men's wellbeing (see table 3.3). Basic resource insecurity was seen as a strong risk factor for men's wellbeing in Cuilco maps but had no net influence on men's wellbeing in Santiago Atitlán maps. In Santiago Atitlán, the perceived negative influence of basic resource insecurity on men's wellbeing was balanced by an equally strong perceived positive influence of this factor (through reduction of infidelity and unequal power relationships in the couple). Several factors in maps

from Santiago Atitlán were perceived to have both positive and negative influences on men's wellbeing, so little overall influence. Women's maps in Cuilco but not Santiago Atitlán identified unwanted pregnancies and suicidality as strong risk factors for men's wellbeing. Table S3.3 gives a full list of factor rankings.

Terapeutas Mayas/Tradicionales. Terapeutas across both regions ranked substance use, poor physical health, irresponsibility, emotional distress, and factors related to family and social relations among the top influences on men's wellbeing (see table 3.3). Those in Santiago Atitlán but not Cuilco ranked social isolation, family separation and neglect, and "not respecting customs" as strong influences on men's wellbeing. The *Terapeutas Mayas* making the maps in Santiago Atitlán specifically mentioned loss of historical memory and the discontinued use of the *tuj* (a traditional steam bath understood to have cultural, healing, and spiritual dimensions[33]) as important aspects of "not respecting customs". *Terapeutas tradicionales* in Cuilco placed greater emphasis on harmful gender norms, domestic violence, unemployment, and poor health promotive care practices as risk factors for men's wellbeing. See table S3.4 for a full list of factor rankings.

Stakeholder group comparisons

In Santiago Atitlán, maps of men, women and *Terapeutas Mayas* all ranked poor physical health, emotional distress, substance use, and factors related to family relations among the top risk factors for men's wellbeing (see table 3.3). Suicidality, lack or religious faith, and misuse of technology were ranked more highly as risk factors in men's maps. Maps of *Terapeutas Mayas* stressed not respecting customs, unwanted pregnancies, and irresponsibility as risk factors.

In Cuilco, all stakeholder groups ranked poor physical health, emotional distress, substance use, family-related factors, basic resource insecurity and unemployment among the most important risk factors for men's wellbeing (see table 3.3). Adult men's maps ranked low self-esteem as a top

risk for men's wellbeing, but this factor did not feature in the maps of adult women or *Terapeutas Tradicionales*.

Age differences

In Santiago Atitlán, young adults and older adults created maps as well as adults. There were some age-related differences in the maps. Young adult maps emphasized social isolation, age-related family concerns (early marriage, forced marriage,) and low self-esteem as risk factors more than maps from adult and older adult groups. Young men's maps also depicted lack of formal education as a top risk factor for wellbeing, unlike adult and older adult men's maps, which depicted lack of formal education as having a protective influence on men's wellbeing. Only the older men's map ranked not respecting customs (including disconnection from identity, loss of respect for medicinal plants, loss of *tuj*, not working the land, following ladino advice on family planning, and "putting a price on everything") as a top risk factor for men's wellbeing.

Discussion

FCM systematized local knowledge on risk and protective factors for men's wellbeing and suggested priority concerns among remote and indigenous communities in Guatemala. Consistent with research on indigenous wellbeing in North America, Australia, and New Zealand (Butler et al., 2019; Gall et al., 2021), group definitions of wellbeing reflected a holistic understanding of wellbeing across regions and stakeholder groups. Definitions emphasized social relations, hard work, capacity to meet basic needs, and physical and emotional health. Maps of all stakeholder groups suggested that top priorities for improving men's wellbeing include promoting physical and emotional health, reducing substance use, and addressing problematic family dynamics. The consistent high ranking of these factors across maps of diverse stakeholder groups suggests that interventions targeting these issues could generate buy-in from community members of different

ages and genders. Specific concerns related to family dynamics included domestic violence, infidelity, and a lack of affectionate, trusting, and supportive relationships. Comparisons between regions highlighted a greater focus on religion and loss of cultural values and practices in the predominantly indigenous Santiago Atitlán. Maps from Santiago Atitlán also presented a more nuanced understanding of the influence of income and formal schooling on men's wellbeing. Age comparisons in Santiago Atitlán highlighted greater emphasis on loss of cultural values and practices among older generations; young adults in Santiago Atitlán held views regarding formal schooling, income, and self-esteem close to adult views in Cuilco.

The importance placed on family and social relations for men's wellbeing and emotional health raises doubts that the scale-up of individualized biomedical interventions will be sufficient to address mental health concerns in Guatemala (Kirmayer & Pedersen, 2014). Research internationally suggests that intergenerational connections and trusting and supportive relationships within the family and community are essential to the wellbeing of indigenous peoples (Butler et al., 2019; Gall et al., 2021; Kirmayer et al., 2009; Vera Noriega et al., 2017). Indigenous scholars have argued that a focus on western mental health discourse and practices is a form of continued colonization of indigenous peoples (Gone, 2013). This view urges the development of alternative approaches to promoting mental health that are compatible with indigenous worldviews. There is a growing body of research on indigenous men's groups, primarily in Australia, which shows that spaces for men to connect with other men and engage in participatory learning and action can improve social connections, connection to cultural identity and subjective wellbeing (McCalman et al., 2010). Our findings suggest such an approach could be relevant for promoting the wellbeing of indigenous and ladino men in Guatemala.

Comparison of maps between Santiago Atitlán and Cuilco highlighted important differences in understandings of the risk and protective factors for men's wellbeing. A greater emphasis on harmful gender norms in Cuilco may reflect the severity of the problem or greater exposure to programming that challenges harmful gender norms, such as the *MenCare* program that has been implemented in Guatemala (José Santos, 2015). Indicators of gender inequity (domestic violence, marital control) are similar across regions (Ministerio de Salud Pública y Asistencia Social (MSPAS) et al., 2016). While men's groups in Santiago Atitlán did not articulate gender norms as a risk factor for wellbeing, they did highlight issues associated with harmful gender norms, including domestic violence and men's lack of involvement in caring for their families. While most research on gender inequity and health has focused on the deleterious impacts of harmful gender norms on women, research suggests that men's inequitable gender attitudes and behaviors also negatively impact their own mental health and wellbeing (Barker et al., 2011). Health interventions that encourage men to question hegemonic gender norms reduce men's alcohol use (Jewkes et al., 2008) and depression (Jewkes et al., 2014). Our findings show that many men in Guatemala may understand problematic family dynamics and gender norms as key issues for their own wellbeing. This suggests that engaging men in critical reflection around their own wellbeing holds promise as an entry point for addressing their role in these complex social problems.

Adult men, older men, and practitioners of Mayan medicine in Santiago Atitlán emphasized the importance of traditional values and cultural practices. This is consistent with research with indigenous communities in the US, Canada, Australia, and New Zealand, highlighting the importance of cultural continuity for indigenous mental health and wellbeing (Butler et al., 2019; Chandler & Lalonde, 1998; Gall et al., 2021; Kral et al., 2011). Young adult

groups in Santiago Atitlán did not include these factors in their maps and placed greater emphasis on the importance of low-self-esteem for men's wellbeing. This suggests shifting values and priorities among younger generations. A clear sense of cultural identity is associated with self-esteem and wellbeing (Usborne & Taylor, 2010), and buffers the impacts of discrimination on self-esteem and poor mental health (Umaña-Taylor & Updegraff, 2007). Interventions that bring together youth and elders to learn from each other's perspectives could allow youth to tap into traditional knowledge that is relevant to their own concerns.

The maps of adult men and women in Santiago Atitlán raise questions about standard development approaches that emphasize income generation and educational attainment as pathways to wellbeing in indigenous communities. While groups in Santiago Atitlán noted the deleterious effects of resource insecurity on emotional wellbeing and physical health, they also noted how income and formal schooling could undermine social harmony, family relationships and cultural traditions. Consistent with the view of adult women's maps, ethnographic research in Guatemala suggests that increased reliance on wage labor, coupled with exposure to hegemonic forms of masculinity through colonization, has disrupted traditional complementary roles between men and women in indigenous Mayan communities (Foxen, 2007). Indigenous people in Canada have also identified wage labor as disrupting traditional social ties and cultural practices key to wellbeing (Kral et al., 2011). In Ecuador, research found that income poverty was a poor indicator of subjective wellbeing for rural indigenous communities (García-Quero & Guardiola, 2018). These findings support the call for development policies that focus on indigenous notions of wellbeing, including a greater focus on social reciprocity, over policies that support the expansion of global capitalism (Acosta, 2015; Peredo, 2019).

The views of older men's groups in Santiago Atitlán on formal schooling echo scholars who have highlighted the role of formal schooling as a tool for cultural assimilation and subjugation of indigenous knowledge in Guatemala (Estrada, 2012). Ambivalent views of formal schooling have also been documented among indigenous peoples in Australia, who voiced concerns that formal schooling can be at odds with traditional forms of cultural education, despite its importance for increasing access to employment (Butler et al., 2019). Our finding should not be interpreted to suggest that education is unimportant for indigenous communities. Rather, our findings call for reforms to formal education systems, so that educational opportunities do not come at the cost of cultural continuity.

Limitations

FCM accesses culturally salient concepts that are readily discussed in a group setting; maps are not an exhaustive summary of all participant knowledge on a topic. In this study, the maps did not include many structural influences, such as political violence or land loss, that are thought to be risk factors for men's wellbeing. This could be because these factors are ubiquitous, and people do not identify them as causes of differences between men who are experiencing wellbeing and those who are not; because people see these structural factors as not being amenable to change; or because of social stigma attached to certain topics. Our previous research and experience in Guatemala have drawn our attention to well-founded fear around certain topics, including indigenous forms of spirituality, that are understood to be politically polarizing. People creating the maps tended to highlight areas of personal agency and inter-personal relationships.

We included group facilitators but not participants in the thematic analysis of the concepts included in the maps, due to time constraints and low participant literacy rates. Analysis of

subsequent in-depth interviews is planned to explore participant understandings of the concepts included in the maps in greater depth.

There are 22 unique Mayan ethnic groups in Guatemala, in addition to the Xinca, Garífuna, afrodescendent and ladino ethnic groups, with distinct languages, histories, cultural values and practices (International Work Group for Indigenous Affairs, n.d.). The data we collected across two sites should not be understood to reflect the views of the Guatemalan population as a whole. Our comparison across distinct ethnic contexts, ages, and genders, as well as the incorporation of the perspectives of *Terapeutas Mayas/Tradicionales*, sheds light on issues likely to be salient across many ethnic contexts and stakeholder groups.

Conclusion

Creating meaningful and effective strategies to promote health and wellbeing in indigenous contexts requires understanding priorities from the worldview of indigenous communities themselves. Fuzzy cognitive mapping offered important insights into factors that are relevant to men's wellbeing in Guatemala from the perspectives of different stakeholders in remote and indigenous communities. Maps highlighted the importance of maintaining cultural traditions and promoting positive family and community relations for indigenous men's wellbeing. Maps also identified the mixed influence of factors such as income and formal schooling on men's wellbeing. The findings call for alternative development models that strengthen rather than detract from indigenous knowledge systems and ways of life.

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Table 3.1. Number of groups and number of individuals participating in FCM by community and demographic group

Region	Demographic group	# of groups (# of individual participants)
Cuilco	Adult men	2 (27)
	Adult women	2 (22)
	Terapeutas tradicionales	2 (9)
Santiago Atitlán	Young men	2 (9)
	Adult men	2 (24)
	Elder men	2 (8)
	Young women	2 (8)
	Adult women	2 (9)
	Elder women	2 (11)
	Terapeutas Mayas	2 (7)
Total		20 (134)

Table 3.2. Demographic characteristics of participants in primary stakeholder groups

	Adult women		Adult Men		*Terapeutas Mayas/tradicionales*[a]	
	Santiago Atitlán (n=9)	Cuilco (n=22)	Santiago Atitlán (n=24)	Cuilco (n=27)	Santiago Atitlán (n=7)	Cuilco (n=9)
Average age (range)	34 (26-65)	36 (23-51)	41 (26-55)	39 (25-64)	55 (37-65)	55 (43-84)
Proportion with at least primary schooling	4/9	3/22	14/24	12/27	1/6	0/9
Proportion who spoke an indigenous language	9/9	4/22	24/24	2/22	7/7	3/9
Proportion married or living with a partner	9/9	22/22	23/24	23/27	7/7	9/9
Proportion with children	9/9	22/22	23/24	26/27	7/7	9/9

[a]All *terapeutas* in Santiago Atitlán were women; 8/9 *terapeutas* in Cuilco were women.

Table 3.3. Ranking of factors according to net causal influence on men's wellbeing in maps from adult men, adult women and *Terapeutas Mayas/tradicionales* in the two regions

	Adult men		Adult women		*Terapeutas Mayas/tradicionales*	
Factor	Santiago Atitlán	Cuilco	Santiago Atitlán	Cuilco	Santiago Atitlán	Cuilco
Poor physical health	1 (-0.95)	4 (-0.93)	1 (-0.60)	2 (-0.70)	1 (-1.00)	1 (-1.00)
Emotional distress	2 (-0.60)	1 (-1.00)	2 (-0.50)	2 (-0.70)	1 (-1.00)	11 (-0.98)
Substance use	2 (-0.60)	1 (-1.00)	2 (-0.50)	2 (-0.70)	1 (-1.00)	1 (-1.00)
Infidelity	2 (-0.60)	4 (-0.93)	2 (-0.50)	2 (-0.70)	1 (-1.00)	1 (-1.00)
Personal characteristics that negatively affect social harmony	2 (-0.60)	9 (-0.80)	17 (-0.05)	14 (-0.40)	9 (-0.90)	1 (-1.00)
Family separation & neglect	2 (-0.60)	17 (-0.50)	2 (-0.50)	16 (-0.20)	1 (-1.00)	25 (-0.30)
Suicidality	2 (-0.60)	17 (-0.50)	No influence	1 (-1.00)	15 (-0.50)	No influence
Lack of religious faith	2 (-0.60)	No influence	17 (-0.05)	No influence	No influence	14 (-0.50)
Misuse of technology	2 (-0.60)	No influence	14 (-0.30)	No influence	No influence	14 (-0.50)
Risk of death	2 (-0.60)	No influence	2 (-0.50)	12 (-0.50)	1 (-1.00)	No influence
Basic resource insecurity	11 (-0.50)	4 (-0.93)	No net influence	2 (-0.70)	11 (-0.80)	1 (-1.00)
Unemployment	11 (-0.50)	4 (-0.93)	No net influence	9 (-0.65)	23 (-0.30)	1 (-1.00)
Lack of affectionate, trusting, supportive family relationships	11 (-0.50)	9 (-0.80)	2 (-0.50)	9 (-0.65)	1 (-1.00)	12 (-0.93)
Low self-esteem	18 (-0.40)	1 (-1.00)	No influence	No influence	26 (-0.20)	No influence
Domestic violence	23 (-0.30)	9 (-0.80)	13 (-0.40)	9 (-0.65)	15 (-0.50)	1 (-1.00)
Poor health promotive care practices	28 (-0.05)	4 (-0.93)	15 (-0.10)	16 (-0.20)	26 (-0.20)	1 (-1.00)
Harmful gender norms	No influence	9 (-0.80)	No net influence	16 (-0.20)	No influence	1 (-1.00)
Excessive workload	18 (-0.40)	16 (-0.60)	2 (-0.50)	2 (-0.70)	22 (-0.35)	22 (-0.40)
Theft	18 (-0.40)	No influence	2 (-0.50)	16 (-0.20)	15 (-0.50)	14 (-0.50)
Bad thoughts	No influence	17 (-0.50)	2 (-0.50)	16 (-0.20)	14 (-0.70)	14 (-0.50)
Problems	11 (-0.50)	No influence	2 (-0.50)	No influence	15 (-0.50)	No influence
Unwanted pregnancies	No influence	14 (-0.70)	No influence	2 (-0.70)	11 (-0.80)	14 (-0.50)
Irresponsibility	18 (-0.40)	13 (-0.73)	No net influence	25 (-0.15)	1 (-1.00)	1 (-1.00)

Note. Table includes all factors that ranked among the top 8 influences on men's wellbeing in at least one of the included stakeholder maps.

Figure 3.1. Example of a fuzzy cognitive map created by adult men in Cuilco

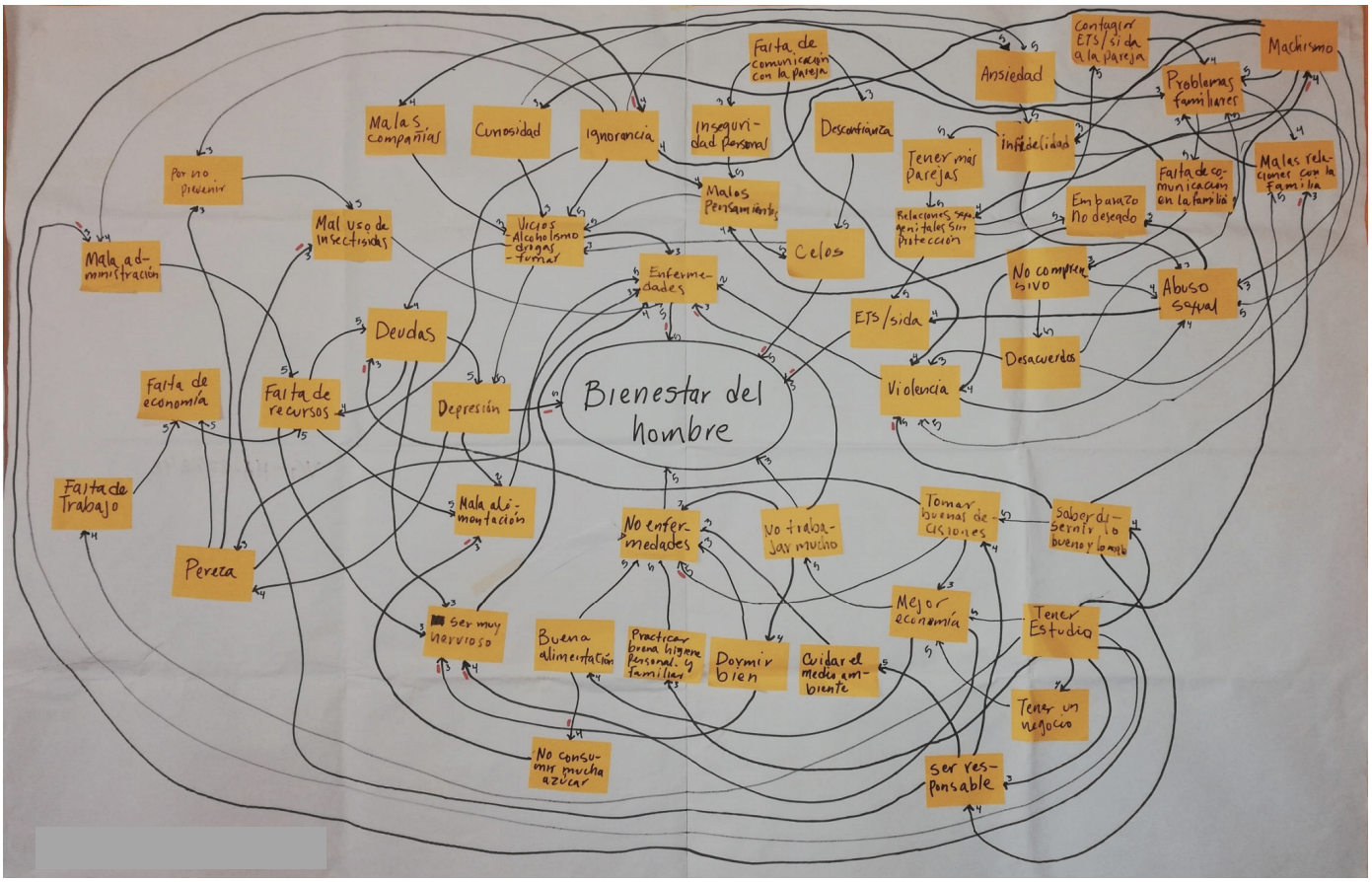
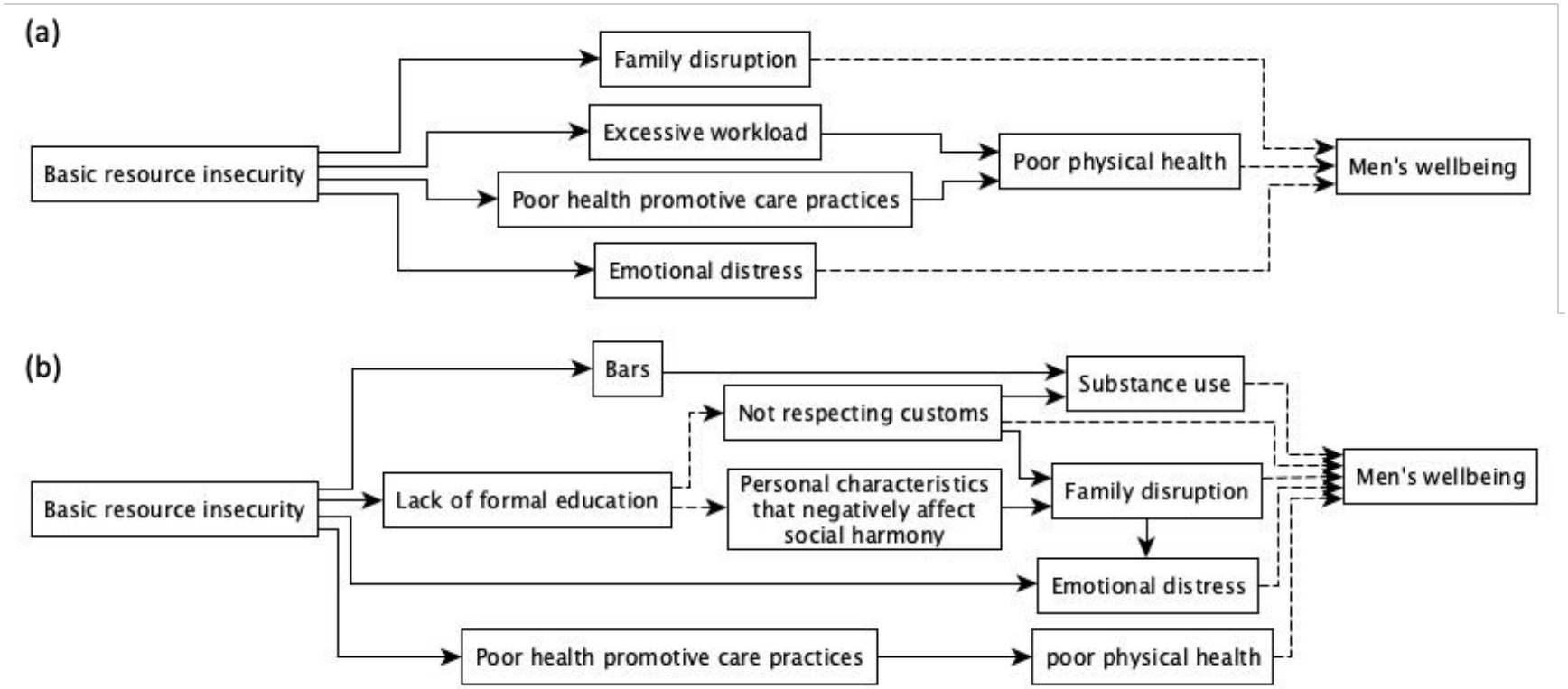


Figure 3.2. Key pathways between basic resource insecurity and men's wellbeing, as understood by (a) adult men in Cuilco, and (b) adult men in Santiago Atitlán



Note. Solid lines indicate a positive (promotive) relationships and dotted lines indicate negative (inhibitory) relationships. Multiple family-level factors (infidelity; lack of affectionate, trusting, supportive family relationships; family separation & neglect; disrupted family education) were understood to contribute to pathways between basic resource insecurity and men's wellbeing, and have been summarized as 'family disruption.'

Table S3.1. Factors included in FCM analysis and description of each factor

Factor name	Description
Bad thoughts	Includes bad thoughts, negative desires, negative attitude
Bars	Only includes bars
Basic resource insecurity	Includes poverty, economic problems, insufficient basic resources (i.e., clothing, housing, food), not having money
Child labor	Only includes child labor
Early dating/marriage/ sex/pregnancy	Includes dating, sex, pregnancy, and marriage at a young age
Disrupted family education	Includes lack of family education, loss of ancestral knowledge, lack of parental discipline, child disobedience
Domestic violence	Includes physical and sexual violence
Emotional distress	Includes descriptions of distress (i.e., worries, anger), specific local idioms of distress, unhappiness, mental illness categories
Excessive workload	Includes excess work, lack of time due to work, heavy lifting
Family separation & neglect	Includes family separation, divorce, lack of family unity, neglectful parenting, abandonment by spouse
Forced marriage	Only includes forced marriage
Harmful gender norms	Includes machismo, gender norms, unequal treatment of women
Infertility	Includes infertility, not having descendants
Infidelity	Includes men's and women's infidelity
Irresponsibility	Includes laziness, irresponsibility, vagrancy, bad decision making, lack of plans, lack of purpose, poor economic administration
Lack of access to health services and health information	Includes difficulty accessing medication and health information
Lack of affectionate, trusting, supportive family relationships	Includes family problems, verbal violence, distrust, jealousy, lack of love, lack of understanding, poor communication, lack of partner support, lack of attention within the family
Lack of formal education	Includes not having formal education/schooling
Lack of religious faith	Includes not having faith in God, lack of spiritual orientation
Low self-esteem	Includes low self-esteem, lack of self-confidence, feelings of inferiority
Migration	Only includes migration
Misuse of technology	Includes violent and pornographic media content, overuse of cell phones, use of social media for infidelity
Negative social influences	Includes bad examples, bad friends
Not communicating feelings/ seeking support	Includes not talking about problems, not seeking help
Not respecting customs	Includes loss of traditional forms of health promotion and healing (e.g., *tuj* (steam bath), herbal remedies), disconnection from identity,

	loss of historical memory, loss of traditional dress, loss of traditional values (e.g., following advice from ladinos about family planning, "losing *Xjaan"* (not respecting the sacred), "harmful interpretations of rights," "putting a price on everything"), changing ways of life (e.g., not working the land)
Not sleeping well	Includes insomnia, not sleeping well
Personal characteristics that negatively affect social harmony	Includes bad character, selfishness, disrespect, dishonesty, pride, lies, disobedience, lack of patience, lack of empathy
Poor health promotive care practices	Includes poor diet, poor hygiene, misuse of insecticides
Poor physical health	Includes illness, physical pain/weakness, injury, disability, malnutrition, gastritis, sexually transmitted infections, HIV
Prison	Includes prison
Problems	Only includes problems
Risk of death	Only includes risk of death
Self-care	Includes improving one's way of life, personal grooming
Social isolation	Includes social rejection, discrimination, isolation, lack of group participation, loneliness
Sports/recreation	Includes sports, recreation, recreational spaces
Substance use	Includes alcohol use, drug use, addiction, "vices"
Suicidality	Only includes suicidality
Taking care of the environment	Only includes taking care of the environment
Theft	Only includes theft
Unemployment	Includes not having work, limited employment opportunities
Unequal power relationship in couple	Includes men being possessive and exerting economic control
Unwanted pregnancies	Includes unwanted pregnancies, lack of family planning, having too many children
Witchcraft	Only includes witchcraft

Note: Some factors included a minority of concepts with opposing meanings (e.g., absence of illness within poor physical health). In these instances, maps were corrected to preserve the intended relationships between factors when replacing concepts with factor names.

Table S3.2. Ranking of factors according to net causal influence on men's wellbeing in maps from adult men in the two regions

	Santiago Atitlán		Cuilco	
Factor	**Rank (Net influence)**	**# of maps that included the factor (of 2)**	**Rank (Net influence)**	**# of maps that included the factor (of 2)**
Poor physical health	1 (-0.95)	2	4 (-0.93)	2
Emotional distress	2 (-0.60)	2	1 (-1.00)	2
Substance use	2 (-0.60)	2	1 (-1.00)	2
Infidelity	2 (-0.60)	2	4 (-0.93)	2
Personal characteristics that negatively affect social harmony	2 (-0.60)	2	9 (-0.80)	2
Family separation & neglect	2 (-0.60)	2	17 (-0.50)	1
Suicidality	2 (-0.60)	2	17 (-0.50)	1
Lack of religious faith	2 (-0.60)	2	No influence	0
Misuse of technology	2 (-0.60)	2	No influence	0
Risk of death	2 (-0.60)	2	No influence	0
Basic resource insecurity	11 (-0.50)	2	4 (-0.93)	2
Unemployment	11 (-0.50)	2	4 (-0.93)	2
Lack of affectionate, trusting, supportive family relationships	11 (-0.50)	2	9 (-0.80)	2
Problems	11 (-0.50)	1	No influence	0
Bars	11 (-0.50)	1	No influence	0
Lack of access to health services and health information	16 (-0.45)	1	No influence	0
Social isolation	16 (-0.45)	2	No influence	0
Low self-esteem	18 (-0.40)	2	1 (-1.00)	2
Irresponsibility	18 (-0.40)	2	13 (-0.73)	2
Excessive workload	18 (-0.40)	2	16 (-0.60)	2
Negative social influences	18 (-0.40)	2	23 (-0.30)	1
Theft	18 (-0.40)	2	No influence	0
Domestic violence	23 (-0.30)	2	9 (-0.80)	2
Lack of formal education	24 (0.10)	1	17 (-0.50)	1

Dating/marriage/sex/ pregnancy at a young age	24 (-0.10)	1	No influence	0
Disrupted family education	24 (-0.10)	1	No influence	0
Not respecting customs	24 (-0.10)	1	No influence	0
Poor health promotive care practices	28 (-0.05)	1	4 (-0.93)	2
Harmful gender norms	No influence	0	9 (-0.80)	2
Not sleeping well	No influence	0	14 (-0.70)	2
Unwanted pregnancies	No influence	0	14 (-0.70)	2
Not communicating feelings/ seeking support	No influence	0	17 (-0.50)	1
Migration	No influence	0	17 (-0.50)	1
Bad thoughts	No influence	0	17 (-0.50)	1
Taking care of the environment	No influence	0	23 (0.30)	1
Sports/recreation	No influence	0	23 (0.30)	1

Table S3.3. Ranking of factors according to net causal influence on men's wellbeing in maps from adult women in the two regions

	Santiago Atitlán		**Cuilco**	
Factor	**Rank (Net influence)**	**# of maps that included the factor (of 2)**	**Rank (Net influence)**	**# of maps that included the factor (of 2)**
Poor physical health	1 (-0.60)	2	2 (-0.70)	2
Emotional distress	2 (-0.50)	2	2 (-0.70)	2
Excessive workload	2 (-0.50)	1	2 (-0.70)	2
Substance use	2 (-0.50)	2	2 (-0.70)	2
Infidelity	2 (-0.50)	2	2 (-0.70)	2
Lack of affectionate, trusting, supportive family relationships	2 (-0.50)	2	9 (-0.65)	2
Risk of death	2 (-0.50)	2	12 (-0.50)	1
Family separation & neglect	2 (-0.50)	2	16 (-0.20)	1
Theft	2 (-0.50)	2	16 (-0.20)	1
Bad thoughts	2 (-0.50)	2	16 (-0.20)	1
Problems	2 (-0.50)	2	No influence	0
Disrupted family education	12 (-0.45)	1	No influence	0
Domestic violence	13 (-0.40)	2	9 (-0.65)	2
Misuse of technology	14 (-0.30)	1	No influence	0
Poor health promotive care practices	15 (-0.10)	1	16 (-0.20)	1
Social isolation	15 (-0.10)	1	No influence	0
Personal characteristics that negatively affect social harmony	17 (-0.05)	1	14 (-0.40)	1
Lack of religious faith	17 (-0.05)	1	No influence	0
Suicidality	No influence	0	1 (-1.00)	2
Basic resource insecurity	No net influence	2	2 (-0.70)	2
Unwanted pregnancies	No influence	0	2 (-0.70)	2
Unemployment	No net influence	1	9 (-0.65)	2
Lack of formal education	No net influence	1	13 (-0.45)	1
Negative social influences	No net influence	2	15 (-0.35)	2

Migration	No net influence	1	16 (-0.20)	1
Harmful gender norms	No net influence	1	16 (-0.20)	1
Prison	No influence	0	16 (-0.20)	1
Self-care	No influence	0	16 (0.20)	1
Sports/recreation	No influence	0	16 (0.20)	1
Irresponsibility	No net influence	2	25 (-0.15)	1
Child labor	No net influence	1	No influence	0
Not communicating feelings/ seeking support	No net influence	1	No influence	0
Unequal power relationship in couple	No net influence	1	No influence	0

Table S3.4. Ranking of factors according to net causal influence on men's wellbeing in maps from *Terapeutas Mayas/tradicionales* in the two regions

	Santiago Atitlán		**Cuilco**	
Factor	**Rank (Net influence)**	**# of maps that included the factor (of 2)**	**Rank (Net influence)**	**# of maps that included the factor (of 2)**
Substance use	1 (-1.00)	2	1 (-1.00)	2
Poor physical health	1 (-1.00)	2	1 (-1.00)	2
Infidelity	1 (-1.00)	2	1 (-1.00)	2
Irresponsibility	1 (-1.00)	2	1 (-1.00)	2
Emotional distress	1 (-1.00)	2	11 (-0.98)	2
Lack of affectionate, trusting, supportive family relationships	1 (-1.00)	2	12 (-0.93)	2
Family separation & neglect	1 (-1.00)	2	25 (-0.30)	1
Risk of death	1 (-1.00)	2	No influence	0
Personal characteristics that negatively affect social harmony	9 (-0.90)	2	1 (-1.00)	2
Social isolation	9 (-0.90)	2	0	0
Basic resource insecurity	11 (-0.80)	2	1 (-1.00)	2
Unwanted pregnancies	11 (-0.80)	2	14 (-0.50)	1
Not respecting customs	11 (-0.80)	2	No influence	0
Bad thoughts	14 (-0.70)	2	14 (-0.50)	1
Domestic violence	15 (-0.50)	1	1 (-1.00)	2
Negative social influences	15 (-0.50)	2	12 (-0.93)	2
Theft	15 (-0.50)	1	14 (-0.50)	1
Unequal power relationship in couple	15 (-0.50)	1	No influence	0
Not sleeping well	15 (-0.50)	1	No influence	0
Problems	15 (-0.50)	1	No influence	0
Suicidality	15 (-0.50)	1	No influence	0
Excessive workload	22 (-0.35)	1	22 (-0.40)	1
Unemployment	23 (-0.30)	1	1 (-1.00)	2

Lack of access to health services and health information	23 (-0.30)	1	No influence	0
Infertility	23 (-0.30)	1	No influence	0
Poor health promotive care practices	26 (-0.20)	1	1 (-1.00)	2
Lack of formal education	26 (-0.20)	1	25 (-0.30)	1
Low self-esteem	26 (-0.20)	1	No influence	0
Harmful gender norms	No influence	0	1 (-1.00)	2
Self-care	No influence	0	14 (0.50)	1
Taking care of the environment	No influence	0	14 (0.50)	1
Lack of religious faith	No influence	0	14 (-0.50)	1
Misuse of technology	No influence	0	14 (-0.50)	1
Prison	No influence	0	21 (-0.43)	1
Migration	No influence	0	22 (-0.40)	1
Sports/recreation	No influence	0	22 (0.40)	1

Connecting Statement 1

In chapter 3, I presented findings from data collection using FCM to explore local understandings of the conditions that influence men's wellbeing in 2 municipalities in Guatemala: Santiago Atitlán and Cuilco. Findings across both municipalities suggested shared understandings of the importance of family and social relations, substance use, emotional distress, and physical health for men's wellbeing. Findings also brought to light divergent perspectives across municipalities. Maps of adult men, older men, and practitioners of Mayan medicine in the primarily indigenous municipality of Santiago Atitlán highlighted the importance of traditional values and cultural practices for men's wellbeing—factors that were not identified in maps from Cuilco. Maps from Santiago Atitlán also highlighted nuanced local views regarding the influence of income and formal schooling on men's wellbeing. Maps of some stakeholder groups reflected views that basic resource insecurity was a threat to men's wellbeing while simultaneously protecting men's wellbeing by reducing infidelity, reducing unequal power relationships with their partners, and reducing access to formal schooling. Maps also documented views of some stakeholder groups in Santiago Atitlán that formal schooling could threaten men's wellbeing by undermining traditional cultural practices and promoting characteristics that disrupt family and social harmony.

While FCM provided a useful summary of the perspectives of key stakeholder groups, with a relatively large sample size, the method did not provide an in-depth understanding of the meanings underlying the concepts or relationships included in the maps. It is also possible that the reliance of the method on causal reasoning may have limited the concepts included in the maps. Medical anthropology research has highlighted the multiple modes of reasoning that participants use in narrating their understandings of health and illness (Groleau, Young, & Kirmayer, 2006; Young, 1981). The research described in chapter 4 was planned to build on the findings from

FCM by exploring the concepts in greater depth and investigating participant perspectives through other modes of reasoning. Qualitative interviews with community-defined experts were used to explore perspectives of the Tz'utujil community in Santiago Atitlán regarding the meaning of men's wellbeing, manifestations of distress, and what can be done to promote men's wellbeing. Interviews included questions about prototypical cases of wellbeing, ill-being, and recovery from distress with the aim of surfacing local understandings about the influences on men's wellbeing that may be more easily accessed through analogical reasoning.

CHAPTER 4. MAYA TZ'UTUJIL PERSPECTIVES ON MEN'S WELLBEING IN GUATEMALA: THE ROLE OF GENDER, FAMILY, AND SOCIAL CHANGE

Prospective Journal (submitted): Transcultural Psychiatry

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Abstract

Ongoing and historical experiences of oppression and violence directed at indigenous peoples in Guatemala raise concerns over their psychosocial wellbeing. Few studies have explored experiences of psychosocial distress or wellbeing among indigenous men. In this qualitative study, we conducted 17 key informant interviews with community-defined experts in Santiago Atitlán, Sololá, Guatemala. Interviews explored local conceptions of (a) men's wellbeing, (b) manifestations of men's distress, and (c) factors that foster or undermine men's wellbeing. In describing men's wellbeing, participants focused on feelings of dignity around earning an honest living, providing for one's family, knowing that one is setting a positive example, contributing to

collective wellbeing, and feeling appreciated by one's family and community. Participants described men's distress manifesting as worries, sadness, feelings of inadequacy, anger, 'not caring about anything,' excessive thoughts (locally termed *ch'ubic*), substance use, and strain on family relations. Narratives suggested that community solidarity, substance use, and various dimensions of family relationships (including communication, emotional support, advice of older family members, gender role expectations) were key influences on men's wellbeing. Participant narratives emphasized the role of social, cultural, and economic change in contributing to substance use and disrupting family and community dynamics. Findings call for family and community-centered approaches to wellbeing promotion that revitalize indigenous knowledge and values, provide spaces for indigenous men to contribute to community dialogue, and foster the questioning of hegemonic gender norms. Findings also call for policies to regulate alcohol sales and promote livelihoods in ways that foster rather than detract from community solidarity.

Introduction

Indigenous Maya in Guatemala are a pluricultural group comprised of 22 different ethno-linguistic communities. Many estimate that the Maya represent 60% of Guatemala's population (Anonymous, 2020; Turner & Luna Sánchez, 2020), despite census data suggesting that they constitute 44% of the population (Instituto Nacional de Estadística Guatemala, 2019). Like indigenous peoples around the world, the Maya have faced a history of violence and oppression that continues to the current day and raises concerns over their psychosocial wellbeing (Turner & Luna Sánchez, 2020). Dating to Spanish colonization in 1524, their land and resources have been increasingly consolidated under the control of a wealthy elite, while the Maya face increasingly precarious living conditions (Turner & Luna Sánchez, 2020). A brief period of agrarian reform in the 1940s and 50s led to a prolonged civil war, from 1960 to 1996, in which 200,000 civilians were

killed, the vast majority of whom were indigenous Maya (Commission for Historical Clarification, 1999). The intentional wartime targeting of Maya communities by the Guatemalan military, for their presumed allegiance to guerilla fighters, is reflective of racist state policies that have been present in times of conflict and peace (Commission for Historical Clarification, 1999). During the war, military tactics forced civilians to patrol their family members and neighbors, with the aim of disrupting indigenous community organization and social ties. Active suppression of indigenous cultural traditions, language and religion were part of efforts to undermine potential resistance to military rule. Violence exposure, cultural suppression and social fragmentation are thought to contribute to ongoing widespread psychosocial distress (Foxen, 2010; Lykes et al., 2007; Puac-Polanco et al., 2015). Moreover, wartime exposure to violence has been linked to substance use and post-traumatic stress disorder in the post-war period (Puac-Polanco et al., 2015).

The Maya continue to struggle with policies aimed to dispossess them of their traditional lands and subsistence lifestyles, now under neoliberal policies that favor the economic interests of large corporations over the protection of natural resources and local livelihoods (Benson et al., 2008; Caxaj et al., 2014). Caxaj et al. (2014) illustrate how the presence of a local mining operation in San Miguel Ixtahuacán, a primarily Maya Mam community in Guatemala, led to social division, distrust and chronic fear, as the community became economically stratified by those who worked at the mine and those who didn't, and threats and acts of violence were used to silence opposition to the mine. Strikingly, three out of every four indigenous persons in Guatemala lives in poverty (Ministerio de Salud Pública y Asistencia Social (MSPAS), Pan American Health Organization (PAHO), et al., 2016). Economic insecurity, ready availability of weapons, and lack of law enforcement in the post-war period are all thought to contribute to hopelessness, low self-esteem, substance use, and chronic fear in indigenous communities (Foxen, 2010; Sullivan, 2007).

International research highlights the ways that gender intersects with social and structural inequities to differentially impact the experiences and health of marginalized men and women (Cariou et al., 2015; Smith et al., 2020). A gendered perspective has been usefully applied to research studies exploring psychosocial distress among indigenous women internationally (e.g. Adelson, 2008) and Maya women living in Guatemala and neighboring Mexico (Crosby & Lykes, 2011; Godoy-Paiz et al., 2011; Warner, 2007). Few studies have looked specifically at indigenous men's gendered experiences of psychosocial distress (George et al., 2019; Nelson & Wilson, 2017; Waddell et al., 2021). Men living in societies that value *machismo*, or masculine displays of power and dominance, but who are unable to achieve these ideals—due to their marginalized ethnicity, sexual orientation, economic or educational status—are thought to engage in more harmful behaviors as a means of asserting their masculinity (e.g., violence, alcohol use) (Barker et al., 2011; Courtenay, 2000; Fleming et al., 2015; Phillips, 2005). Alarmingly high rates of domestic violence, alcohol use disorders (Ministerio de Salud Pública y Asistencia Social (MSPAS) et al., 2016), and suicidal ideation (Pezzia & Hernandez, 2021) among men in Guatemala—across all ethnicities—call for interventions to address underlying psychosocial distress and problematic gender norms. Greater attention to local understandings of men's wellbeing would positively inform the design of psychosocial interventions to promote men's wellbeing and positive family dynamics. This knowledge is also needed to ensure that measures used to document the effectiveness of interventions incorporate indigenous peoples' worldviews, priorities, and concerns (Taylor, 2008).

We previously used the technique of Fuzzy Cognitive Mapping (FCM) with groups of men, women, and *terapeutas Mayas* (practitioners of Mayan systems of medicine) in Santiago Atitlán, Sololá – an indigenous Tz'utujil community in the western highlands of Guatemala – to explore

how different groups of stakeholders understand men's wellbeing and attribute wellbeing to underlying social conditions (Pizarro et al., 2022). We found that all three groups of stakeholders identified emotional distress, substance use, and family and social relations to be important influences on men's wellbeing. Some groups also expressed ambivalent views of the influence of income and formal schooling on men's wellbeing, based on an understanding that income is important to meet basic needs, while both income and formal schooling can lead to disruptions in family dynamics and undermine respect for indigenous cultural traditions. To elaborate on our previous findings, we used qualitative methods to explore in depth Tz'utujil understandings of men's wellbeing, distress and factors that contribute to and detract from men's wellbeing.

Methods

Study design

This study was part of a pilot intervention implemented in Guatemala to engage rural and indigenous Maya communities in identifying and addressing social conditions affecting wellbeing. While the pilot intervention involved both men and women and spanned two departments in Guatemala, the current study focused on wellbeing among Maya Tz'utujil men in Santiago Atitlán. We used in-depth interviews to explore local understandings of men's wellbeing in Santiago Atitlán, guided by three questions: (a) What does men's wellbeing mean from a Tz'utujil perspective? (b) What are common manifestations of men's psychosocial distress? (c) What can be done to promote men's wellbeing?

Setting

The research took place in the municipality of Santiago Atitlan, in the Department of Sololá, in the western highlands of Guatemala. Sololá's population is 97% Maya Tz'utujil and is recognized for continuity of Mayan cultural practices and values throughout periods of colonization and state-

sponsored violence relative to other Maya groups (Carlsen, 2011). Nevertheless, research suggests that increased participation of indigenous populations in the global economy is causing rapid cultural change (Carlsen, 2011; Rojas & Chávez, 2019). The adult population of Santiago Atitlán has an average of four years of formal schooling (Instituto Nacional de Estadística Guatemala, 2019); agriculture, forestry and fishing comprise the largest occupation sector, followed by commercial trade, and textile and food manufacturing (Gobierno Municipal de Santiago Atitlán, 2012). Over 70% of the population lives in poverty (Ministerio de Salud Pública y Asistencia Social (MSPAS) et al., 2016).

Participant Recruitment

Data collection took place between September 2018 and April 2020. Just over half (17/29) of individuals approached to be interviewed agreed to participate. We recruited community-defined experts by asking pilot intervention participants to identify community members knowledgeable about men's wellbeing, resulting in nine initial participants. Five participants were recruited by asking initial interviewees who else would be knowledgeable about the interview topics (respondent-driven sampling). Three additional participants were identified by DPQ, a community leader involved in the pilot intervention. Participants' potential exposure to the intervention was limited to sessions that involved groups identifying and mapping out the factors affecting local men's and women's wellbeing.

All participants lived or worked in one of two subdivisions of Santiago Atitlán, one near the town center and another on the periphery. Participants included seven *terapeutas mayas*, four *abuelas comadronas* (traditional midwives, who accompany families during and beyond childbirth), two *ajq'ij* (Mayan spiritual guides), one community leader, one social worker, one educator, and one farmer. While the majority of participants (12 of 17) were men, both community

members and the research team thought it appropriate to include women who have an in-depth understanding of family dynamics in their communities through their role as *abuelas comadronas.* See table 4.1 for demographic details.

Procedures

We conducted 17 key informant in-depth interviews. All lasted 1-2 hours, except for one that was interrupted after 37 minutes due to the participant having another commitment. Trained local interviewers, including DPQ and DQS, conducted 16 of the interviews in Tz'utujil, and KP conducted one in Spanish. Interviewers followed an interview guide and used open-ended questions and extensive probing to explore perspectives in greater depth. Interview questions explored participant perspectives on a) the meaning of wellbeing, b) the meaning of *men's* wellbeing, c) generational differences in how men's wellbeing is understood d) how Tz'utujil identity influences understandings of wellbeing, e) manifestations of men's distress, and f) what individuals and communities can do to promote men's wellbeing. In addition, interviewers asked key informants to describe prototypical cases of a) wellbeing, b) ill-being, and c) recovery from distress. Thirteen interviews were audio-recorded; four participants refused recording, in which case interviewers took detailed notes. The first author met with interviewers daily to review and adjust interview guides to ensure the relevance of questions and explore emerging themes. All audio-recorded interviews were transcribed verbatim in Spanish (simultaneous translation and transcription for interviews conducted in Tz'utujil).

Analysis

The first author analyzed all interview transcripts and field notes using an inductive approach to thematic analysis (Braun & Clarke, 2006) that included: a) initial reading of all interviews to explore emerging themes, b) in-depth reading and coding of each interview using emic codes (e.g.

helping others, hard work, worry), c) categorization of emic codes into broader thematic categories, d) writing summaries for each thematic category, paying attention to discrepant cases, and e) initial interpretation of findings and translation of key quotes to English. Initial results were shared with the local research team to triangulate perspectives and provide a more nuanced interpretation. We used qualitative data analysis software MAXQDA to organize and code transcripts (VERBI Software, 2017).

Research Team

The first author, a white female North American PhD student, with academic training in indigenous mental health research and community based mental health interventions, conducted all coding and data analysis and one of the interviews in Spanish. Two of the co-authors (DPQ and DS) and one additional young man from the community, all in their late twenties and with previous health research experience, carried out the remaining interviews in Tz'utujil. We matched 14 of 17 participants with an interviewer of the same gender. Local interviewers all participated in other forms of employment that may have influenced their perspectives, including traditional weaving, handicrafts, and trading of produce. While we sought an inductive approach to data analysis, interpretation of the data was shaped by the first author's familiarity with research on the social determinants of indigenous mental health in other contexts. All findings were shared with the co-authors for interpretation. The local co-authors' sense of the importance of unregulated alcohol sales likely influence our attention to that aspect of the data. In addition, the framing of the study within the planning of a dialogue-based intervention drew our attention to issues related to community dialogue and social support.

Ethics

The institutional review boards at the McGill Faculty of Medicine and the Instituto de Nutrición de Centro América y Panama (INCAP) approved this study. Participants provided oral informed consent prior to each interview, which was deemed appropriate in a context with low literacy rates. Participants were not compensated for their time.

Results

Narratives suggested that men's emotional wellbeing, family relationships, and community wellbeing were deeply intertwined. We first present an overview of how participants described men's emotional wellbeing and manifestations of distress. We then present key influences on men's wellbeing identified in participant narratives, including family relationships, community solidarity and alcohol use. Social change, gender norms, and financial insecurity were cross-cutting themes and are mentioned throughout. We were not able to discern important differences in views based on participant gender; results for male and female participants are presented together.

Emotional wellbeing and distress

Descriptions of men's wellbeing focused on feelings of dignity and satisfaction around earning an honest living, providing for one's family, knowing that one is setting a positive example, contributing to collective wellbeing, and feeling appreciated by one's family and community.

> The behavior of man in society makes him feel calm and always happy, because he knows that he is not looking out for his own interest but for the interest of all. P13 (male, *terapeuta Maya*, 27, paraphrased)

> Having a dignified job also helps the man emotionally because he can aspire to continue fighting to be able to raise his family and, above all, that the job allows him to enjoy, to be present with his children. P15 (male, community leader, 55, paraphrased)

Participants referenced both Christian religious beliefs and Mayan spiritual beliefs informing their understanding that "If we do good things, we reap good things" P4 (female, 62 *abuela comadrona*).

Many participants contrasted what they understood as true sources of happiness with what they saw as misguided ideas in younger generations that overemphasized material wealth. Several participants described the availability of resources today that weren't present for previous generations (commercially available clothing, running water, electricity, schooling) leading to younger generations losing a sense of humility and gratitude for a simple way of life.

> …wellbeing nowadays is having money, a house, health, clothes, food, and education…they have lost the principles and values of our identity as Tz'utujil… in reality, (wellbeing) is what we can do and what we contribute to live in a good community. P14 (male, *terapeuta Maya*, 69)

Participants described men's lack of wellbeing manifesting in a constellation of factors, including emotional distress, substance use, and strain on family and social relations. The most common forms of emotional distress described included worries, sadness, feelings of inadequacy, anger, and 'not caring about anything.' The local idiom *ch'ubic* was used to describe a state of excessive thoughts and worries commonly affecting men and women. Instances of *ch'ubic* were understood to result most often from financial concerns in the face of unemployment and pressures to meet the family's basic needs. Many described men 'falling into vices' (used interchangeably with substance use, primarily alcohol) as a telltale sign that a man wasn't well.

Being ‘free of vices’ was understood to be a requisite for men’s wellbeing, yet problematic alcohol use was described as widespread, particularly among men and youth. Many participants explained men’s substance use in terms of vulnerability, created through a combination of emotional distress, hesitancy to seek emotional support, limited supports available to men, and easy access to cheap alcohol.

> Most people fall into a vice because they have not been able to or cannot find a solution to their problems. Sometimes maybe the problem is so small, and the person's way of thinking makes it big. This is due to lack of communication, lack of trust with the partner, maybe as a couple they could solve it, but because there isn’t trust, instead of finding a solution they turn to something that brings more problems. P17 (male, educator, 30)

Men’s wellbeing was understood to be interdependent with the wellbeing of their families. Participants described how when a man is well, he plays with his children, he and his wife understand each other, he is attentive to his family’s needs, he provides money to his wife to cover the family’s expenses, and his family feels loved. Participants described men who were suffering from emotional distress or substance use as being unable to provide financially or emotionally for their families.

> It is not possible to speak of only one wellbeing when it comes to couples, because it cannot be that the man is well while the woman is suffering, or the woman is well while the man is suffering. When the man is well, the woman is the same because she enjoys the happiness of the husband, a calm husband free of vices, the woman is loved, treated with respect and valued because she is in charge of preparing food for someone who values it... and when the man is not well, the woman is the one who suffers ... she is mistreated, she is offended

> by coarse words, just as she does not receive the household expenses for food. P12 (female, *abuela comadrona*, 61)

Participants described various pathways through which men's feelings of distress had ripple effects on the wellbeing of the whole family. These included men distancing themselves from family due to feelings of inadequacy, most often related to unfulfilled gender roles as economic providers, placing further strain on family support systems. Others described feelings of frustration leading to partner conflict and violence. Many described men turning to substance use to cope with their feelings, which placed additional strain on limited resources and exacerbated family conflict or neglect. Participants also described men's efforts to hide their feelings from their partners leading to an erosion of understanding and trust between couples.

> When a man is not well, he must have a reason why and many times we do not tell anyone, and the result of this is that the man has no control of himself, nor of the family. The man can fall into a vice, he is absent from the family, he does not take care of the home. P17 (male, educator, 30)

Men's substance use was at times attributed to problematic parenting and parental alcohol use, and in turn, was understood to reduce their involvement and set a bad example for their own children, repeating the problem intergenerationally.

> The children are also vulnerable due to the father's emotional problems, since they see directly how the man of the house acts, and this could affect the children's lives, that is to say that when the children need their dad's help, they do not receive it. In this way it can lead the children to be vulnerable to the vices. The attitude of the father can determine the future of the children. P15 (male, community leader, 55, paraphrased)

Family relations

Family relations were discussed repeatedly by all interview participants. Key aspects for men's wellbeing included communication and emotional support, transmission of traditional values, and fulfillment of gender roles.

Communication and emotional support. Unity, trust, communication, and emotional support between couples were described as among the most important contributors to both men's and women's wellbeing. Participants explained that a wife's support could serve as a buffer when a man is dealing with challenging situations.

> The most important thing is that the man has the trust in his partner and that his wife is an understanding person and at the same time can lift her husband's spirits… the man may have low self-esteem but with the support of his wife, he feels good, supported, and feels that he has the most important thing in life, which is the support of the family... P11 (male, *ajq'ij*, 78)

Nevertheless, some participants talked about men being unlikely to express their emotions or ask for help when they need it. Participants noted how shifting lifestyles were eroding traditional family dynamics, partner trust, and communication. Lifestyle shifts included young people rushing into marriage without sufficient attention to compatibility, families no longer eating dinner together because of different schedules, young people being distracted by technology, changes in gender relations, and a rise in infidelity. Discrimination based on gender, ethnicity, and education status was understood to undermine men's self-esteem, making it difficult for them to express their feelings or seek help.

> A man could be sad because he does not have self-confidence, let alone the confidence of his family… They could ask him what is happening, but he does not answer anything.

> Inside, he tells himself if he explains they could laugh at me. That's what happens here, and it's worrisome because men don't have anywhere where they can be heard. P1 (male, *terapeuta Maya*, 39)

Transmission of traditional values. Participants emphasized the importance of parental examples, discipline, and advice for wellbeing. Receiving *naoj* (advice and traditional wisdom) was seen as particularly important for young people to learn traditional values, such as honor, respect, hard work, and generosity, which would, in turn, allow them to live well. While participants referred to advice from parents and other community members, many placed particular emphasis on the advice of grandparents. Receiving grandparents' advice was discussed as a crucial way to learn traditional values and customs that allowed them to live well despite hardships.

> …we still have the necessary strength to return to being like our grandparents, there are still grandparents alive, and we can go to them, learn from their knowledge. We must remember and reflect on our origin, that is our wealth... therein lies our strength to be able to achieve wellbeing. P16 (male, famer, 51)

Many participants attributed to problematic parenting a perceived rise in youth delinquent behaviors. Despite some participants noting the importance of formal schooling for gaining access to employment, many also attributed the erosion of transmission of traditional values to the introduction of formal schooling and associated shifts in family power structures when children received formal schooling that their parents and grandparents did not.

> If the child is going down a bad path, he is no longer interested in what the mother says, worse if he has an education. Then the mother will not even be able to speak because the son thinks he is superior. P5 (female, *abuela comadrona*, 77)

Respect for ancestral knowledge and grandparents' advice was understood to be in decline due to the increasing importance placed on formal schooling.

> Now when you speak, and you do not have an academic preparation they discriminate against you… The respect has already been lost. As I said before, our grandparents respected everything, with candle, incense they knelt and thanked God for providing everything… whereas today it is only schooling. Nowadays, even if we talk about this with young people, they do not take you into account … that is why I say that everything valuable in our community is being lost … its people, its knowledge, and its culture. P3 (male, *terapeuta Maya*, 65)

Fulfillment of gender roles. Participants described distinct roles for men and women in providing for their families. Nearly all participants described providing financially for one's family as a requirement for men's wellbeing, leading to satisfaction and pride.

> I took care of my family by working with dignity, I did not earn much, but I was happy with what I earned to feed my family. That's where all the emotion of a person comes from… You feel the satisfaction that you are a responsible father and setting a good example for your children, teaching your children to be hard working, responsible and obedient. P10 (male, *ajq'ij*, 85)

Participants described how difficulty finding employment meant that men often struggled to provide for their families and experienced feelings of frustration, hopelessness, and shame.

> Today is September 10, five days from September 15 (Independence Day). The system tells us that we must parade all children with uniforms, shoes and what happens to that family that does not have the capacity to give those to the child? First, it affects the child emotionally but also the parents cry and suffer and die slowly with the sadness of not

> having the resources to be able to tell the child to go and participate properly and with dignity as it should be… There is no father, I do not know, so heartless that he does not care about that. P9 (male, social worker, 48)

Several participants associated men's distress with present-day economic inequities.

> …a person is sad, they can't find a job, and they see that someone else has everything while he doesn't ... he feels lonely… he sees that he is not capable of giving what is necessary to his family, he is ashamed, he distances himself from his children, he feels that he is not a good person. P3 (male, *terapeuta Maya*, 65)

While all participants expressed a view that men were expected to be the primary financial providers for their families and women were primarily homemakers, participants also described an important role for fathers in providing attention, affection, and guidance to their children.

> As a father, one must be aware of the children, what they do, with whom they relate… It is important to talk with the child, to ask them what they need, if they need help… the most important thing for me as a parent is to be there when my children need me. That makes my children feel loved. And to always tell them not to get into trouble, to not speak ill of people, to always greet others, and above all when someone needs a helping hand, to help. P10 (male, *ajq'ij*, 85)

Community solidarity

Nearly all participants described how wellbeing implied not just personal or family wellbeing, but living in harmony with others, which entailed helping one's neighbors and prioritizing community solidarity over personal gain. Participants described traditional values—including obedience, honor, respect, honesty, humility, and gratitude—underpinning social harmony and wellbeing.

> Older men were born in a better time because their parents taught them principles to take care of their lives and respect everything. For example, they did not get carried away by money, they valued all things regardless of their economic price, they only acquired what they needed to live, and they lived tranquilly in their homes. P8 (female, *abuela comadrona*, 65)

Many participants lamented how an increasing focus on economic competition was undermining these values.

> In the past, when someone sows black beans and someone else would like to sow but has no seed, the one who has offers to the one who doesn't. The mentality of our grandparents before is that we grow and prosper together. Also, if there is someone who has red bean seeds and the other has black beans, they exchange them. The red bean is worth more than the black one, but they don't give importance to the price… but nowadays, when you explain this to people, they tell you, 'You are crazy. How is it possible that I give him something that is worth a lot, and he gives me something that is cheap?' Nowadays, we look at the prices of things and not at what we can be in life—exemplary people who work together for the same cause, which is the good of all. P11 (male, *ajq'ij*,78)

Participants also described increasing access to formal schooling among younger generations to be undermining traditional modes of family education, rupturing the transmission of indigenous values and cultural practices that promote community solidarity. Inequitable access to formal schooling was understood to contribute to social stratification and a rise in discrimination toward those with less access to schooling, particularly indigenous Maya, *campesinos* (rural farmers), and elders.

> Many times, it happens that someone, as a man, expresses himself and just because he is not academically prepared, he is discriminated against, and they do not opt for his idea. This makes him think 'I do not have the opportunity, so I will not no longer attend a social invitation' P14 (male, *terapeuta Maya*, 69)

Some participants also described how efforts to support women in the community—through health and development programs and laws to protect them against violence—had led to men feeling devalued.

> Nowadays, all projects are for the benefit of women. It's like men are marginalized and not taken into account. They feel they aren't valued, that they don't have importance in society. That's why many times they fall into vices—because they feel their rights don't matter. P12 (female, *abuela comadrona*, 61)

Many participants mentioned the importance of fostering men's participation in community groups—where they feel respected by the community and can offer their opinion without discrimination—for counteracting discrimination and promoting self-esteem.

> In our current environment, there is a lot of discrimination from within the locality. Just because I am not at the status or level of others, they do not allow me to express myself and be a participant in a collective activity. It is important to take into consideration the man's will. Because he is a peasant, they do not give him the opportunity. Well-being is not the responsibility of one but of all. For this reason, as a man and part of my community, it is necessary that they give us the opportunity to have an opinion. P1 (male, *terapeuta Maya*, 39)

Some participants also highlighted the importance of dialogue between community members as a way for men to give and receive *naoj*, allowing them to fulfill a responsibility to help others and

learn from others in the process. Many participants emphasized the need to foster intergenerational communication to overcome misunderstanding between generations and allow younger generations to learn traditional values that promote solidarity and wellbeing.

Alcohol use

Alcohol use was discussed by all participants and described not only as a common manifestation of men's distress, but also a cause of suffering for men and their families. All references to alcohol use were described as problematic, except for a few participants who contrasted current problematic use with use for medicinal purposes in previous generations. Narratives fluctuated between identifying social and structural causes of men's alcohol use and stating that men could make a choice to avoid alcohol use. Over half of participants described an abundant supply of cheap alcohol as a key influence on men's substance use and an important barrier to men's wellbeing.

> In the times of our grandparents, there were about three stores that sold alcoholic beverages and those stores did not have them by the case, but at most a dozen or a dozen and a half, because previously our grandparents drank a little bit... because for them it was a remedy... While nowadays it is common that on every corner there is a *cantina* (bar)... Men are very vulnerable to everything that happens and that is why men cannot achieve wellbeing... P1 (male, *terapeuta Maya*, 39)

Participants complained that a few were getting rich from alcohol sales while men and their families were paying the price. Some highlighted public authorities' lack of concern for public wellbeing and their failure to regulate alcohol sales. They described regulation as an important measure for improving the wellbeing of men and the community.

> There should be no more *cantinas*, so that men, old people, adults, and young people stop drinking. This is the only way our people will achieve wellbeing. Wellbeing right now is only for those who sell drugs or own *cantinas*... they have a good house, clothes, better food, education for their children and in any health situation they can afford a doctor. But those who are suffering are the families of the men who have vices, they are suffering too much. P12 (female, *abuela comadrona*, 61)

Social pressure—from friends and colleagues—was also described as an important influence on men's drinking. While some pinpointed men's distress making them vulnerable to 'falling into vices', some participants also described men giving little thought to drinking when they started or being unaware of the negative consequences it would bring.

> Before, when I worked at the farm that I told you about a while ago... when I got paid, I would go out to drink, drink, drink until I got drunk... I worked hard just to go out drinking… the truth is that you do it because you don't know what the consequences of it are... no one explained to me at that time that it was bad what I was doing.... but if you get involved with people who drink, it gets worse. P10 (male, *ajq'ij*, 85)

Participants described how shifting alcohol consumption patterns had led to a declining sense of security in public spaces, which was disrupting collective wellbeing.

> In our times, everyone in the community came to our town's patron saint festivities because they saw that the fair was being held and everyone was happy and there was no need to invite anyone because everyone knew that it was everyone's party, but nowadays, alcoholic beverage sellers are everywhere, and one is afraid to go out and take the children because there is no longer any control. P10 (male, *ajq'ij*, 85)

Discussion

Our findings provide insight into indigenous notions of men's wellbeing and distress in a Tz'utujil community undergoing rapid social, economic, and cultural change. Participants, who were primarily practitioners of Mayan medicine over age 60, emphasized the interconnected nature of men's distress and the wellbeing of their families and communities. Findings build on our previous research that documented local understandings of men's wellbeing as linked to family relationships, connection to indigenous customs, and substance use (Pizarro et al., 2022). Participants in the current study highlighted the ways that gendered experiences of social and structural adversity contribute to men's distress, create vulnerability to substance use, and undermine family cohesion. Participants emphasized the importance of community solidarity and the impact of social and economic change in undermining indigenous values of reciprocity and collective wellbeing. We discuss the relevance of findings for development projects and the planning of interventions to promote wellbeing in indigenous contexts of Guatemala and beyond.

Our findings highlight the mutually dependent nature of men's wellbeing and the wellbeing of families in Santiago Atitlán. This is consistent with research emphasizing the importance of family and social relations for wellbeing in Latin America (Rojas, 2020) and for the wellbeing of indigenous peoples internationally (Butler et al., 2019; Gall et al., 2021; Kirmayer et al., 2009; Vera Noriega et al., 2017). Findings call for the prioritization of community and family-centered approaches to wellbeing promotion for indigenous communities in Guatemala—as has been advocated elsewhere (Kirmayer & Pedersen, 2014; Kral et al., 2011). Our findings also raise concern that exclusion of men from health programming that targets maternal and child health neglects the important role of men. A review of interventions to promote men's involvement in maternal health during the perinatal period found increases in antenatal care and reductions in

maternal postpartum depression (Yargawa & Leonardi-Bee, 2015). Our findings—which emphasize the interdependency between men's emotional distress, substance use, and contribution to family wellbeing—suggest that interventions to promote male involvement must go beyond men's instrumental role in supporting women's health to consider men's own psychosocial wellbeing. This is consistent with international research documenting associations between male depression, alcohol abuse, perpetration of domestic violence and reduced contributions to caregiving (Barker et al., 2011; Contreras et al., 2012; Fleming et al., 2015).

While gender is a widely recognized determinant of health (WHO Commission on Social Determinants of Health, 2008), policymakers and program planners have erred in equating a gender focus with attention to women's health (Bates et al., 2009; Phillips, 2005). Scholars suggest that narrowly defined gender roles can amplify the negative psychosocial impact of men's perceived failure to fulfill gender expectations (Kavanagh & Graham, 2019). Our research highlights how expectations for men to provide economically for their households—within a context where these expectations are hard to achieve due to overarching structural violence—can lead to emotional distress, low self-esteem, alcohol use and harmful family dynamics (violence, emotional neglect, financial neglect). Distress arising from the experience of inequities in the face of expanding global markets resonates with concerns voiced by internally displaced communities in Colombia that 'promises of modernisation and capitalism are presented as available to all but are not achievable in practice' (Burgess & Fonseca, 2020, p. 212).

Our findings fit with the theory proposed by Bastos (1998), based on interviews with men in Guatemala City, that men's inability to fulfill cultural expectations—as sole financial providers for their families and role models for their children—leads to feelings of incompetence and a further abandonment of these roles. Interventions that include a questioning of hegemonic gender

norms have been found to reduce men's alcohol use (Jewkes et al., 2008), depression (Jewkes et al., 2014), and perpetration of violence (Ricardo et al., 2010), as well as improve men's relationships with partners and friends (Ricardo et al., 2010). Researchers working with indigenous men in North America argue that critical reflection regarding the legacy of colonization on notions of masculinity and internalized racist stereotypes are necessary for healing indigenous men's trauma and grief (Waddell et al., 2021). Research in Guatemala suggests that indigenous communities have historically held more egalitarian gender roles than their non-indigenous counterparts, within subsistence agriculture lifestyles (Ehlers, 1991; Foxen, 2007). In our study's context, we suggest interventions promoting critical reflection on imposed gender norms and other forms of oppression faced by indigenous men (economic marginalization, discrimination based on ethnicity and education status) could prove useful for overcoming internalized feelings of inferiority and promoting indigenous men's wellbeing.

Our findings also highlight community views of shifting trends in alcohol consumption, which were often attributed to ease of access (availability, price) and failure of local authorities to regulate alcohol sales. These findings are consistent with research documenting indigenous Quechua community views in Peru that increasing alcohol availability has facilitated a shift in drinking habits from occasional to frequent collective drinking (Yamaguchi et al., 2021). Participants in that study also identified government profit from taxes on alcohol sales as a barrier to regulation. Similar to our findings, participants in Ayacucho described alcohol sales changing the meaning and value of community festivals, which had once served as spaces to promote social ties and reciprocity but were now understood as being primarily for economic profit (Yamaguchi et al., 2021). While only voiced by a few participants in our study, research with indigenous Mapuche communities in Chile suggests that current day alcohol problems are also attributable to

the declining authority of indigenous leaders and the erosion of indigenous customs for limited and culturally sanctioned alcohol use (Garcés & Zambrano, 2019; Zambrano et al., 2018). The findings of our research suggest that rapid change in the alcohol environment, combined with social and structural conditions that are weakening the transmission of traditional practices, is translating into increases in problematic alcohol consumption within indigenous communities. The World Health Organization has deemed regulation of the availability and pricing of alcohol among the top 5 cost-effective interventions to reduce harmful alcohol use (Rekve et al., 2019). Yet research has documented the heavy and relatively unquestioned influence of the alcohol industry in shaping policies in low- and middle-income countries away from regulation of marketing and sales toward initiatives that focus on individual behavior change (Delobelle, 2019; Marten et al., 2020). In Santiago Atitlán, community leaders have taken action to control the sale of alcohol within the municipality, leading to a municipal order in 2018 to close establishments that sell alcoholic beverages (Toc, 2019). However, less than one year later, the Chamber of Industry of Guatemala filed an injunction against the actions taken by the community, and the Constitutional Court ruled in their favor, reinstating alcohol sales (García, 2020). Our findings call for meaningful policy changes to counteract the influence of the alcohol industry and to support greater regulation of alcohol sales, alongside efforts to address men's psychosocial vulnerabilities.

Finally, our findings call for greater incorporation of indigenous worldviews in development agendas, particularly in efforts to increase access to quality education. Consistent with our previous research using FCM (Pizarro et al., 2022), participants expressed a view of formal schooling as undermining traditional modes of family education, social cohesion, and collectivist values. As in other contexts of recent increases in formal schooling (Devine et al., 2021), participants in our study described exposure to schooling among younger generations

(while parents and grandparents have had little or no schooling) as restructuring the power relations between children and their elders, and undermining elders' authority and knowledge. Devine et al. (2021) draw on Bourdieu, to explain how differential access to formal education in rural Sierra Leone 'fundamentally alters both the nature and weighting of cultural capital in the allocation of power and status in a given society/community' (p. 266). Our findings highlight the concerns of older generations that their loss of status is disrupting family education and the transmission of ancestral values understood to be crucial for individual and collective wellbeing. These findings are consistent with concerns raised in other indigenous contexts, where formal education has been understood to jeopardize traditional social ties, cultural practices, and cultural education (Butler et al., 2019; Kral et al., 2011). Findings also echo concerns about formal schooling as a tool for cultural assimilation in Guatemala (Estrada, 2012). Viewing our findings through the lens of Sen's capabilities approach to wellbeing, 'in which the person has freedom to choose to lead one type of life over another and that freedom is a genuine choice which carries both instrumental and intrinsic value' (Sen, 1999, as cited in Yap & Yu, 2016, p. 316), leads us to call for increased efforts to decolonize the education system, so that indigenous populations are able to choose an education that is compatible with, and not destructive of, traditional values (Bartlett et al., 2012; Munroe et al., 2013). Notable international examples of such an approach include development and delivery of an intervention by Apache Elders to teach youth about traditional values in middle schools (Cwik et al., 2019) and efforts in Canada to integrate indigenous knowledge in post-secondary environmental science curricula (Bartlett et al., 2012).

Limitations

This study focused on the perspectives of community-defined experts—primarily practitioners of Mayan medicine over age 60—in an indigenous context recognized for a relatively high degree of

cultural continuity throughout periods of colonization and oppression. We did not seek out a representative cross-section of the population and findings do not reflect the views all community members. Future research would benefit from comparing the views of younger adults to the perspectives of the older adults participating in this study. The young adult Tz'utujil members of the research team (including two co-authors and one interviewer) recognized a critical role for learning about Tz'utujil culture for the wellbeing of their own and future generations, while holding a view of Tz'utujil culture as adaptive in the face of social change. Their view that young people deserve the freedom to choose to lead their lives in accordance with indigenous values while also adapting to changing social contexts echoes Sen's capabilities approach (Yap & Yu, 2016). They also held strong views that unregulated alcohol sales were a key issue for the wellbeing of men and their community.

Many individuals we invited to participate in the study—particularly younger men—declined to be interviewed. Several participants also refused audio recording, meaning details may have been lost in data collection and analysis. Low participation rates and aversion to audio recording are likely reflective of a pervasive atmosphere of fear and social distrust that has been documented in Maya communities in post-war Guatemala (Lykes et al., 2007).

The participants in our study made little mention of the prolonged period of political violence, from 1960-1996, which has been viewed by scholars as one of the root causes of current day psychosocial issues affecting indigenous communities (Foxen, 2010; Lykes et al., 2007; Puac-Polanco et al., 2015). In other post-conflict settings, communities have identified alcohol use as a coping mechanism in response to collective trauma (Yamaguchi, 2021). We were not able to discern whether the limited discussion of political violence by participants in our study related to

social stigma attached to the topic or the fact that other concerns were more salient in the participants' everyday lives.

Conclusion

Our research highlights the interconnected nature of men's wellbeing and the wellbeing of families and communities in a Maya Tz'utujil community in Guatemala. Our results emphasize the role of narrow and often unattainable expectations for men within the current neoliberal economic system, coupled with a lack of spaces where men feel comfortable expressing their feelings and seeking help, in undermining men's self-esteem and access to social support. Our findings call for interventions and policies that counteract the impact of rapid social, economic, and cultural change on family connections, community solidarity, and transmission of traditional knowledge and values, as well as increased integration of men's wellbeing as a key component in achieving health and wellbeing for the whole family and community.

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Table 4.1. Demographic details of interview participants

Participant #	Gender	Occupation	Age	Civil status	Children (Y/N)	Education level	Language(s) spoken
P1	M	*Terapeuta Maya* (Mayan therapist)	39	Married	Y	Completed primary	Tz'utujil
P2	M	*Terapeuta Maya* (Mayan therapist)	59	Married	Y	No schooling	Tz'utujil
P3	M	*Terapeuta Maya* (Mayan therapist)	65	Married	Y	No schooling	Tz'utujil
P4	F	*Abuela comadrona* (Mayan midwife)	62	Widowed	Y	No schooling	Tz'utujil
P5	F	*Abuela comadrona* (Mayan midwife)	77	Widowed	Y	No schooling	Tz'utujil
P6	F	*Terapeuta Maya* (Mayan therapist)	79	Married	Y	No schooling	Tz'utujil
P7	M	*Terapeuta Maya* (Mayan therapist)	65	Married	Y	No schooling	Tz'utujil
P8	F	*Abuela comadrona* (Mayan midwife)	65	Married	Y	No schooling	Tz'utujil
P9	M	Social worker	48	Married	Y	Post-secondary	Spanish, other
P10	M	*Ajq'ij* (Mayan spiritual guide)	85	Married	Y	No schooling	Tz'utujil
P11	M	*Ajq'ij* (Mayan spiritual guide)	78	Married	Y	No schooling	Tz'utujil
P12	F	*Abuela comadrona* (Mayan midwife)	61	Married	Y	No schooling	Tz'utujil
P13	M	*Terapeuta Maya* (Mayan therapist)	27	Single	N	No schooling	Tz'utujil
P14	M	*Terapeuta Maya* (Mayan therapist)	69	Married	Y	No schooling	Tz'utujil
P15	M	Community leader	55	Married	Y	Secondary	Tz'utujil
P16	M	Farmer	51	Married	Y	Did not complete primary	Tz'utujil
P17	M	Educator	30	Single	N	Post-secondary	Tz'utujil, Spanish

Connecting Statement 2

Chapters 3 and 4 focused on understanding local perspectives on men's wellbeing and the factors that influence men's wellbeing in Santiago Atitlán and Cuilco, Guatemala using FCM and KIIs. The findings from both FCM and KIIs suggested the need for family and community-based psychosocial interventions that strengthen family ties, community solidarity, and the transmission of indigenous knowledge. The findings from KIIs presented in chapter 4 also highlighted the need for community spaces where indigenous men can contribute to public dialogue to build men's self-esteem and counteract experience of discrimination. The research presented in chapter 5 sought to address the needs identified in chapters 3 and 4 though intervention research exploring the potential of a pilot dialogic intervention to promote wellbeing in Santiago Atitlán and Cuilco, Guatemala. Specifically, I carried out a process evaluation alongside implementation of a dialogic intervention over the course of one year that aimed to explore the feasibility of the approach and its key mechanisms for promoting psychosocial wellbeing.

The pilot intervention included men's and women's groups, as well as groups of *terapeutas Mayas/tradicionales*, and was intended to promote both men's and women's wellbeing. I carried out my analysis of the process evaluation data with attention to gender as a potential influence on both the feasibility and key mechanisms of the intervention.

CHAPTER 5. COMMUNITY ENGAGEMENT TO PROMOTE WELLBEING IN GUATEMALA: PROCESS EVALUATION OF A GROUP DIALOGIC INTERVENTION

Prospective Journal (submitted): American Journal of Community Psychology

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Abstract

Engaging communities in dialogue to develop strategies to address the social and structural conditions that contribute to poor mental health has been advocated as a promising strategy for promoting psychosocial wellbeing in indigenous contexts. Little is known about how group dialogic interventions work in context to promote psychosocial wellbeing. One community engagement intervention was piloted with remote and indigenous communities in Guatemala. This

process evaluation explored feasibility and key mechanisms for promoting psychosocial wellbeing. We conducted thematic analysis of individual interviews with 57 participants and three facilitators, observed group reflection sessions (six observations), and analyzed them alongside facilitator monitoring logs. Financial insecurity, expectations of external resource provision, gender norms, and social distrust challenged implementation and limited group actions aimed at structural change. Indigenous traditions of community solidarity and sharing wisdom fostered acceptability and group motivation for collective action. Participants described increased social cohesion, community solidarity, self-esteem, and confidence to express themselves. Men described reflection on factors influencing wellbeing, including gender norms, leading to reduced alcohol use and improved family dynamics. Women described employing new stress-relief strategies. Dialogic interventions hold promise for tackling key determinants of wellbeing in Guatemala, but contextual factors constrained implementation and group actions to address structural inequities.

Introduction

The Pan American Health Organization estimated in 2018 that mental, neurological, substance use disorders and suicide (MNSS) account for 32% of years lived with disability in Guatemala (Pan American Health Organization, 2018). Alcohol use disorders are the top contributor to MNSS for men, with headache and depressive disorders top contributors for women (Pan American Health Organization, 2018). In the years after Guatemala's 36-year armed conflict—in which over 200,00 civilians were killed and 440 Mayan villages were destroyed—ended in 1996, much attention has been given to violence exposure as a determinant of poor mental health and substance use (Commission for Historical Clarification, 1999; Puac-Polanco et al., 2015). Ethnographers and humanitarian organizations have highlighted the lasting destruction of

social ties within families and communities, resulting from the military's wartime tactics of forcing civilians to police neighbors and family members (Anckermann et al., 2005; Carlsen, 2011; Foxen, 2010). International epidemiological data indicate that this destruction of social capital—in particular, loss of trust, social cohesion, social support, and sense of community—likely contributes to poor mental health (Ehsan & De Silva, 2015). Indigenous communities in Guatemala have also experienced a history of oppression that has undermined community autonomy, cultural identity, and spiritual practices—factors understood as important sociopolitical determinants of distress in indigenous contexts (Chandler & Lalonde, 1998; Turner & Luna Sánchez, 2020). In addition, ongoing land dispossession, economic inequality, discrimination, and social violence exacerbate suffering in indigenous communities in Guatemala (Benson et al., 2008; Knowlton, 2017).

As in many low-resource contexts, most people with mental illness in Guatemala do not access health services, with less than 5% of individuals with anxiety, substance use and affective disorders accessing mental health care (Kohn et al., 2018). 'Task shifting'—which involves training non-specialists to implement evidence-based mental health interventions—has been the dominant strategy for increasing access to mental health care in low resource settings (Kirmayer & Pedersen, 2014). This approach has been criticized for privileging biomedical models of mental illness, which are highly individualized, decontextualized, and pathology-oriented, while diverting attention away from social determinants of distress (Kirmayer & Pedersen, 2014). Researchers working with marginalized and indigenous communities have emphasized the need for local authorship of strategies to address the social and structural conditions that contribute to poor mental health (Kirmayer et al., 2009; Kral & Idlout, 2009).

Dialogue groups, in which community members collectively reflect on the social conditions underlying health issues, can help to solve problems and implement solutions rooted in local resources. These groups hold promise as public health interventions that seek to improve health in marginalized communities through community engagement. Examples include the use of dialogue groups to address maternal and newborn health across Asia and Africa (Prost et al., 2013), dengue prevention in Nicaragua and Mexico (Andersson et al., 2015), HIV prevention and support for people living with HIV in Zimbabwe (Campbell et al., 2013), and suicide prevention in indigenous communities in Alaska (Wexler et al., 2019). Dialogue groups apply principles of popular education (Freire, 1970; Wiggins, 2012), including a) a focus on peer-to-peer learning, emphasizing experiential knowledge rather than outside expertise, b) promotion of critical thinking skills to identify root causes of issues, and c) recognition that change requires a continuous cycle of reflection and action. The Freirean concept of popular education focuses on building critical consciousness—awareness of structural sources of social inequities and actions to challenge them—and is often viewed as a tool for tackling structural inequities that lead to poor health among marginalized populations (Wallerstein et al., 2017; Wiggins, 2012). Many dialogic interventions target the more modest goals of changing social norms and health behaviors and allowing individuals and communities to gain greater control over their health.

Knowledge Gaps

Research on community participation in health interventions, and community dialogue groups in particular, has primarily focused on communicable diseases and reproductive and child health in Asia and Sub-Saharan Africa (George et al., 2015). A focus on impact evaluation through randomized trials has left a gap in knowledge around how participation works in context to promote health and wellbeing. Such knowledge is needed to ensure key elements are retained when

scaling up and adapting interventions (Van Belle et al., 2017). To address this gap, we conducted a qualitative process evaluation while piloting an intervention using community dialogue groups to promote psychosocial wellbeing in Guatemala.

Aims

In this study, we aimed to 1) evaluate the feasibility of implementing the intervention in remote and indigenous communities in Guatemala, with a focus on how local context influenced the implementation process; 2) identify issues prioritized and actions taken by groups; and 3) explore participant perspectives on key intervention mechanisms for promoting psychosocial wellbeing.

Intervention description

The intervention aimed to convene monthly meetings of stakeholder groups over the course of one year, beginning in August 2018. Facilitators attempted to recruit separate groups of, a) young women, b) young men, c) adult women, d) adult men, e) older women, f) older men, and g) *terapeutas mayas/tradicionales* in each community. *Terapeutas mayas,* also referred to as *terapeutas tradicionales,* depending on the region, are individuals who treat common illnesses according to the Mayan cosmovision and ancestral knowledge. The category includes *abuelas comadronas*, who accompany women during and beyond childbirth. Intended age ranges for young adult, adult and older adult groups were 18-24, 25-49 and ≥50, but no participants over 18 who wished to join a particular group were turned away. In addition, health district supervisors invited members of community health outreach teams to participate at municipal level. The aim was to include 15 groups per municipality, with a goal of 7-10 participants per group (total N=30 groups; 210 to 300 individuals). Participants did not receive material compensation for attendance.

Participant engagement began with identifying influences on wellbeing using fuzzy cognitive mapping (FCM) (Khan & Quaddus, 2004; Sarmiento, 2020). Local facilitators asked

participant groups to (1) define wellbeing, (2) list the factors they understood to affect wellbeing in their community, (3) use arrows to depict causal relationships between factors, and (4) weight the relative importance of each connection. Each participant group created separate maps of men's wellbeing (session 1) and women's wellbeing (session 2).

Using maps created through FCM as a basis for discussion, groups prioritized 3-5 issues using the nominal group technique (Harvey & Holmes, 2012). The groups used the prioritized issues as dialogue topics for the remaining sessions. Monthly dialogue sessions aimed to generate co-learning based on sharing of experiences, critical thinking about the underlying causes of the issues, problem-solving, and agreement on actionable strategies. Facilitators supported groups in implementing strategies in between meetings.

During the final meeting of the dialogue groups, the facilitators asked participants to reflect on group successes and challenges over the previous year. Drawing on the techniques of Cornwall and Aghajanian (2017), groups mapped their views of the project trajectory on an x-y axis, where the x-axis represented time and the y-axis represented success of the project. Facilitators asked group members to explain the dynamics behind the trajectories and discuss how challenges could be overcome and how future intervention efforts could foster more positive outcomes.

Implementation setting. The intervention took place in four communities across two municipalities in Western Guatemala: Cuilco, Huehuetenango and Santiago Atitlán, Sololá. Our local implementation partner, *Instituto de Salud Incluyente,* collaborated to select sites, based on indicators of social adversity (high rates of poverty, malnutrition) and existing relationships with local health departments. We included two ethnically and socio-culturally distinct locations to increase the relevance of our findings for populations throughout Guatemala. Santiago Atitlán has a primarily urban population of 42,000 inhabitants, 97% of whom identify as indigenous *Tz'utijil*

Maya (Instituto Nacional de Estadística Guatemala, 2019). Cuilco has a primarily rural population of 60,000, 20% of whom identify as indigenous Mam Maya (Instituto Nacional de Estadística Guatemala, 2019).

Methods

Study design

This process evaluation was part of a larger mixed-methods evaluation of the pilot intervention. We chose to analyze and present our qualitative findings prior to evaluation of quantitative impact data, as suggested in the UK Medical Research Council guidance on process evaluation of complex interventions (Moore et al., 2015). Data collection methods included: a) individual interviews with group facilitators, b) individual interviews with participants, and c) observation of group reflection sessions. Researchers also analyzed data from group facilitator monitoring logs that tracked meeting dates and locations, attendance, issues prioritized and addressed, activities carried out by groups, and facilitator reflections on implementation barriers and enablers. Facilitators also recorded basic demographic data (age, marital status, occupation, education level, languages spoken, number of children) of participants at the first meeting of each group.

Individual interviews with group facilitators

In the final month of the implementation period, the first author conducted individual in-depth interviews with three group facilitators (two men, one woman) to explore their perspectives on implementation enablers and barriers and suggestions for improving intervention delivery. Two interviews took place in-person in a private location, and one took place by phone. Interviews lasted 1-2.5 hours and were recorded and transcribed verbatim in Spanish. Interviewer notes complemented recordings, including one case where poor audio quality prevented transcription of a large portion of one interview.

Individual interviews with group participants

Group facilitators invited 57 intervention participants (see table 5.1), stratified by region and stakeholder group to maximize variation in intervention experience, to participate in an individual interview during the final two months of the intervention. Within groups, facilitators selected participants based on high levels of attendance. All agreed to participate. The interviews drew on the most significant change technique (MSC) (Dart & Davies, 2003). MSC can uncover both intended and unforeseen outcomes of an intervention, illustrate *how* the intervention impacted those involved, and indicate which outcomes are most valued by participants (Dart & Davies, 2003). Trained local research assistants asked selected participants to identify the most significant change they had experienced personally through their participation, illustrate it with a story, and explain why they thought that change was significant. Participants also identified the most significant group-level change they witnessed and told a story about it. The research assistants conducted the 5-15-minute interviews in Tz'utujil or Spanish and transcribed the recordings verbatim in Spanish (translated from Tz'utujil when relevant).

Observation of final group sessions

Trained notetakers took notes on a convenience sample of six groups in Santiago Atitlán during the final session where they reflected on the project trajectory. Observed groups included one each of *terapeutas mayas*, adult women, older women, and young men, and two groups of adult men. An average of 9 participants were present per group (total 54).

Data analysis

A thematic analysis of monitoring logs, interview transcripts and observation notes used a combination of inductive and deductive coding (Fereday & Muir-Cochrane, 2008). We used MAXQDA 2018 qualitative analysis software to code and organize data (VERBI Software, 2017).

Deductive codes included codes related to our study aims (attendance, priority issues, group actions), and specific anticipated mechanisms based on the program theory (critical consciousness, connection to indigenous identity). Inductive codes captured unanticipated mechanisms (reduced isolation, confidence for self-expression), implementation barriers (problematic group dynamics), and implementation enablers (facilitator role). The first author coded all data. A research assistant jointly coded participant interviews; minor coding differences were resolved through discussion. The first author grouped the codes into thematic categories and wrote summaries for each category, paying attention to similarities and differences between participant and facilitator perspectives and between participants from different stakeholder groups. Summaries were shared and interpreted through discussion with the research team. The first author translated key quotes to English.

Reflexivity. Biases within the research team included a belief by team members that participatory interventions can play an important role in addressing upstream influences on psychosocial wellbeing in indigenous communities. To limit bias, we triangulated methods that were primarily intended to uncover positive experiences (participant narratives elicited in interviews) with methods that intended to uncover challenges (observation of group discussions, interviews with facilitators), and paid attention to discrepant cases (Maxwell, 2012).

Ethics

The institutional review boards at McGill University Faculty of Medicine and Health Sciences, CIET International, and Instituto de Nutrición de Centro América y Panama (INCAP) approved this study. Community authorities were also consulted and provided approval. Participants gave oral informed consent after an explanation based on a standardized script prior to participation in interviews and the dialogue sessions where observers were present. Oral consent was appropriate in a context of low literacy, a minimal risk intervention, and no collection of participant identifiers.

Results

Feasibility

Key challenges to feasibility included difficulties with recruitment and attendance, problematic group dynamics (initial hesitancy to engage in dialogue, teasing) and hesitancy toward taking collective action. Thematic analysis suggested these issues were shaped by financial insecurity, gender norms, pervasive social distrust, a history of exposure to top-down health programs, and a sense of powerlessness to address structural inequities. Our analysis also suggested that indigenous traditions of community solidarity and sharing advice fostered acceptability and group motivation for collective action.

Recruitment and attendance. Facilitators convened 22 of the 30 intended groups. The 18 groups that completed the intervention met an average of 11 times (range: 9-17) and averaged 5-12 participants per meeting. Attendance details are provided in table S5.1. Table 5.2 provides participant demographic data for each stakeholder group.

Attendance and meeting frequency varied widely between groups. Aside from scheduling conflicts, most participant and facilitator explanations for low attendance and fewer than intended meetings related to financial insecurity. They mentioned migration out of communities in search of employment, competing events where participants were compensated for their time (including political campaigns), transportation costs, men's long working hours at physically demanding jobs, and the economic cost of time lost during attendance.

> It's ok that we come to learn about the topics, but we also have kids at home. What are they going to eat if we're here? That's why we need your support, to help us sell something we make to have some money. (Adult woman, Santiago Atitlán, paraphrased)

The facilitator in Cuilco also highlighted his difficulty traveling between the remote communities, which limited his availability to facilitate meetings. Participants in Santiago Atitlán mentioned how the gender of the young man facilitating initially deterred participation of women for fear of gossip; this was remedied after he was joined by a woman co-facilitator. All facilitators and nearly all six groups participating in the collective evaluation activity suggested including incentives or livelihood skills training in future intervention iterations.

Group dynamics. Facilitators described difficulty engaging participants in peer-to-peer dialogue during early meetings, where they tended to expect didactic modes of instruction.

> In fact, when you come to a community or a group, the people see you as the one who knows, right? And who is going to tell them what to do. They call you 'prof', they call you 'licenciado' (someone holding a degree) … when I began the dialogues, people spoke to me (as opposed to between each other) … they would say 'Don (facilitator's name), what do you think?' (Local facilitator)

They suggested prior exposure to top-down health education initiatives led participants to expect that the intervention would focus on the transfer of outside knowledge and resources. Facilitators also noted issues with teasing in several men's groups during early meetings, which they attributed to a cultural norm of men not talking openly about their problems (e.g., family relationships, gender norms, mental health, and substance use). Facilitators and participants raised issues about trust, particularly among men's groups in Santiago Atitlán, which they understood to be exacerbated by local elections. The man facilitating in Santiago Atitlán thought his age (late 20s) may have made older participants hesitate to engage in dialogue, given cultural norms of deference to elders. Facilitators noted engagement and trust increased over time in most groups and described using stories and games to build comfort; they suggested incorporating trust-building activities

(games, stories) and longer implementation periods to allow for the cultivation of trust in future intervention implementations.

Collective action. In both regions, facilitators and participants described how fear of gossip, social judgment and personal safety created hesitancy toward taking actions that reached beyond participants' own families. For example, a group of older women in Santiago Atitlán discussed performing a Mayan ceremony to address community-wide alcohol problems, but concluded that reviving the tradition would carry too much stigma:

> I see that most of us are afraid of doing what we learned when we were little. I went to share this with my family, some told me 'If you do this, what will they think of us? They will exclude us from many things'... and I honestly couldn't find the words to answer them (Older woman, Santiago, paraphrased).

A sense of powerlessness to address structural determinants of wellbeing without external resources or support was also apparent in discussions documented in monitoring logs. For example, while several groups identified unregulated alcohol sales contributing to alcohol problems in their communities, they stated that addressing this issue might be unsafe or require involvement of local authorities or church leaders. Women's groups in Cuilco pointed out that addressing partner communication, domestic violence and *machismo* required men playing a central role.

The groups that achieved collective actions identified external supports as important enablers (facilitator connecting participants to local radio station and recording equipment or acquiring donations from a local weaving cooperative). Participants in Santiago Atitlán referenced indigenous traditions of community solidarity and sharing of *naoj* (Tz'utujil term that refers to the sacred act of transmitting wisdom) in their planning of strategies and stories of change.

> If we only talk about the problems without doing something concrete, we would be making a serious mistake. Let's remember what our grandparents told us, that it is a responsibility to help others, like they did before when they built houses… they all contributed voluntarily. Some brought poles, others made the thatched roof… others acquired corn shafts for the walls, others added stones (Adult man, Santiago, paraphrased)

These long-standing cultural traditions appeared to motivate collective action.

Issues prioritized and actions taken by groups

The most frequently prioritized issues across groups were related to alcohol use, family relationships and emotional distress. In Santiago Atitlán, multiple groups prioritized negative use of cell phones and internet (cyberbullying; violent/pornographic media content), loss of traditional values ('living life without purpose,' 'loss of respect'), and early marriage. In Cuilco, multiple groups prioritized *machismo* (exaggerated masculine gender norms) and domestic violence. Table S5.2 provides details on group priorities.

Most group actions fell into three categories: Advice and emotional support; social and recreational gatherings; and setting collective goals for individual behavior change. Advice and emotional support included informal one-on-one support to peers and family members, as well as publication of local radio spots on misuse of technology and a talk at a local school about the importance of traditional knowledge. Goals for behavior change included improving family communication, reducing substance use, and employing stress-relief strategies. One group of adult men in Santiago Atitlán installed running water for an older woman whose husband had problems with alcohol use. One group of young women in Santiago Atitlán learned livelihood skills. See table 5.3 for examples of group actions corresponding to each category.

Key mechanisms of change

Participant narratives suggested four primary mechanisms leading to perceived improvements in psychosocial wellbeing: 1) building social cohesion and community solidarity, 2) promoting participant self-esteem and confidence to express themselves, 3) generating reflection on determinants of wellbeing, and 4) promoting individual behavior change to improve personal and family wellbeing. All mechanisms were linked in participant narratives to components of the dialogue groups themselves, while (1) and (4) were also tied to the planning and implementation of specific group actions.

Building social cohesion and community solidarity. Many participants, across regions and genders, described experiencing social isolation prior to their involvement in the intervention and characterized the dialogue meetings as a unique opportunity to form social connections, access social support and lend support to others. Many women recounted realizing for the first time that they were not alone in their struggles as they heard other participants talk about their lives. Many women's narratives and two men's narratives linked reduced isolation and increased emotional support to reductions in emotional distress and improvements in mood.

> I felt like I was drowning, because I did not know how to remove the sadness and stress… but when you arrive with other people, you, or those bad ideas that you have in your head, and you to talk with other people, they go away, and you are happy. (*Terapeuta tradicional*, Cuilco)

Most women in Santiago Atitlán, a few women in Cuilco, and a few men across regions described their participation increasing their awareness of community needs and their desire or capacity to help others. Giving advice and being a positive influence in one's community were linked to feelings of pride and satisfaction. A man involved in installing running water for an older woman

in his community stated, “We feel at peace because of what we are doing. We can be an example… seeing the changes that we have created, constructing a different community, creating trust amongst ourselves and of the community toward the group” (paraphrased).

*Promoting participant self-esteem and confidence to express themselves***.** Many participants, both men and women, described increasing recognition of their own value and ability to voice their perspective within and beyond the group.

> One is afraid to speak, thinking ‘What others will say when I speak?’… especially with someone who is educated… one begins to feel comfortable… We learn that we each have our own abilities and that it is no longer easy to discount us. (*Abuela comadrona*, Santiago Atitlán)

Some participants attributed this change to the equal respect provided in the dialogue format to demographic groups that are otherwise viewed as lacking the capacity to address their own needs—such as *terapeutas mayas* and youth not enrolled in school. For example, an *abuela comadrona* in Santiago Atitlán contrasted the dialogue groups with the trainings provided by local health authorities and non-governmental organizations, where they are not given the opportunity to speak, and their traditional practices are dismissed or criticized. Young women in Santiago Atitlán contrasted the way they are listened to with respect in the dialogue meetings with the way their opinions are dismissed within their homes and at the health post.

A few participants described how their newfound confidence, generated through practice speaking in the dialogue setting and realizing that their advice could help others, had increased their capacity to provide social support beyond the dialogue group or voice concerns that led to improvements in their relationships.

> … we can help our friends with the different challenges that may happen in their lives and be that support they need… Before, I could not express myself or talk about anything with someone like I'm doing with you now. When I started to participate in the meetings, I lost my fear… (Adult woman, Santiago).

Participants in the group of adult men who installed running water for an older woman in the community understood their actions as rectifying the past harms they had inflicted upon their community through their own alcohol use, which they said increased their self-esteem; the local facilitator described their actions as constituting a form of restorative justice.

*Generating reflection on determinants of wellbeing***.** Across regions and genders, participants described new knowledge and increased reflection on how their actions affect their own and other's wellbeing. Both men and women identified the importance of advice and problem solving within the group, as well as input from the group facilitator, for gaining insight into problems in their lives.

> There are topics… that sometimes one does not have the opportunity, or they are not easy to talk openly about with family or friends… you live your life, but you do not analyze it… In those circles you listen to your colleagues talk about the situations they are going through, and you relate… one is more aware of how to do things, why one does them and can try to improve little by little. (Community health worker, Cuilco)

Some men described reflecting for the first time on the consequences of their alcohol consumption for their family's wellbeing. Some dialogues questioned inequitable gender roles. In a dialogue session focused on partner communication, adult men talked about women not talking openly with their husbands for fear that they would become angry or violent. One participant reacted:

> If women feel or think that, what have we done so that those thoughts about us don't continue? [Long period of silence among group] Exactly! We haven't done anything. We don't even dare to tell our partners, 'If there is something you don't like about me, tell me and I will listen to you.' (Adult man, Santiago Atitlán, paraphrased)

A few groups reflected on structural causes of problems, such as unregulated alcohol sales contributing to alcohol problems in their communities. However, most reflection concerned individual behavior (e.g., alcohol use, time spent with family, exercise).

*Promoting individual behavior change to improve personal and family wellbeing***.** Participants described how increased awareness of conditions affecting wellbeing led to taking actions to improve personal and family wellbeing. Men described individual efforts to reduce substance use, practice self-care and be more involved with their families.

> I used to drink every day… that was money lost from what I earned because it all went there. Now it's different. Now I save my money. I look at what I'm doing with my money. You can see where I'm investing. I get along well with my family. I talk to people because we're becoming friends. (Adult man, Cuilco)

Women across both regions described incorporating stress-relief strategies, such as breathing exercises, going for a walk, or playing sports, into their everyday lives. They felt these strategies led to reductions in emotional distress.

> After I got married, I only took care of my home and my family. I no longer had time to have fun or relax a little… When we decided to start playing sports with my peers, I felt really good, because when I have a lot of thoughts or something happens to me at home or when my head really hurts, I go out to play sports and my headache goes away… I received

naoj (wisdom) to not think so much and dedicate time for myself. (Young adult woman, Santiago Atitlán)

Discussion

This study illustrates pathways through which a dialogic intervention can promote psychosocial wellbeing in remote and indigenous communities in Latin America, surfacing contextual factors that influenced feasibility. The intervention showed promise in tackling several key social determinants of psychosocial wellbeing, including social cohesion and community solidarity, self-esteem, and behavior change related to alcohol consumption and gender roles. In Santiago Atitlán, groups drew on and fostered indigenous traditions of community solidarity and sharing of advice in planning actions to promote wellbeing, suggesting the intervention can support culturally meaningful solutions in indigenous contexts. Nevertheless, financial insecurity, expectations of external resource provision, gender norms, and time limitations challenged implementation. A climate of fear and concern for safety limited the ability of groups to take collective action to address structural inequities.

Individuals with high levels of participation in the intervention described the intervention increasing the quantity and quality of their social connections—by providing a space to share common struggles, provide mutual support and become agents of positive change in their communities. These social connections and sense of community solidarity, alongside trust, are often aggregated in the construct *cognitive social capital* in epidemiological studies, which has been shown to protect against common mental disorders (Ehsan & De Silva, 2015). A growing body of research evaluates interventions designed to promote social capital as a strategy for improving mental health (Flores et al., 2018), but few such interventions have been evaluated in Latin America. Our findings suggest that the intervention is a promising strategy for re-building

social capital in rural and indigenous communities in post-war Guatemala—a much needed task in communities exposed to armed conflict and the resulting rupture of social ties and traditions of reciprocity (Anckermann et al., 2005; Foxen, 2010). The increased social solidarity and motivation to act as agents of positive community change described by participants are also understood to be prerequisites of collective action aimed at structural change (Wiggins, 2012).

Individual and collective empowerment are considered key determinants of mental health, particularly in indigenous contexts (Tsey et al., 2007), and important goals of community dialogic interventions (Wiggins, 2012). However, many 'empowerment' programs overemphasize the provision of material resources, with minimal focus on how marginalized groups perceive themselves, overcome internalized oppression, and become capable of challenging power differentials (Batliwala, 2007; Cornwall, 2016). Participants in the current study described how the challenging of usual assumptions about who qualifies as an expert and who can contribute positively to community wellbeing, within the space of the dialogue groups, increased their self-esteem and view of themselves as agents of positive community change. Participant narratives suggested the intervention influenced their perceived sense of control over their lives and health, a well-recognized protective factor for mental illness (Kiecolt et al., 2009). They described these changes leading to actions beyond the dialogue groups, such as providing social support to peers and speaking out to improve conditions in their lives and relationships. Nevertheless, we observed no instances of collective action aimed at challenging community power structures, with many groups choosing instead to focus on individual or family change. In some cases, groups reflected on structural drivers of poor health like unregulated alcohol sales but expressed powerlessness to address them. Cases of individuals facing threats or attacks for participating in advocacy that counters the interests of large corporations are widespread in Guatemala (see, for example, Petzey,

2022) and, while not mentioned explicitly by participants, likely contributed to participants' reluctance to consider certain actions; their focus on individual behavior and family relations may have been a pragmatic choice in this context. These findings are consistent with the conclusion of Petersen et al. (2012) that engaging marginalized communities, who lack symbolic and economic power to challenge existing hierarchies, may be insufficient for generating structural change.

Our findings have important implications for community-based strategies to support gender equity and reduce gender-based violence, many of which predominantly target women (World Health Organization, 2010). Many women's groups in our study prioritized gender and family relationships as key to their wellbeing but stated that addressing them was impossible without involving men. This affirms the importance of including men in efforts to promote women's psychosocial wellbeing (Jewkes et al., 2015). Engaging men in addressing topics perceived as women's issues can be challenging (Casey et al., 2013). In our intervention, placing men's wellbeing promotion as the focus for men's groups organically led to discussions around problematic gender norms, domestic violence, substance use and family relationships in nearly all groups; several groups took actions to address problematic partner relationships and alcohol use. Many men described reductions in substance use, improved anger management and greater involvement in their families. Future research could measure the short- and long-term impact of a dialogic approach on gender attitudes and violence behaviors, when men are engaged in promoting their wellbeing on their own terms.

Engaging indigenous communities in designing local approaches to promote wellbeing is considered an important strategy for promoting recovery of indigenous values, cultural practices and spiritual traditions that are important determinants of health and wellbeing in indigenous communities (Chandler & Lalonde, 1998; Gone, 2013; Kirmayer et al., 2009; Kral & Idlout, 2009).

Participants in Santiago Atitlán described the intervention as strengthening indigenous values of mutual support and community solidarity, as well as fostering transmission of traditional knowledge. However, participants also highlighted tensions around revitalizing indigenous ceremonial practices in a context where communities face ongoing discrimination and stigma, particularly surrounding indigenous spirituality (Carlsen, 2011)—as illustrated in the recent murder of Domingo Choc Che, a practitioner of Mayan medicine burned alive by local mob in El Petén, Guatemala after they accused him of witchcraft (Garrard, 2020). Our findings highlight the limitations that efforts at cultural revitalization face without simultaneous political efforts to recognize and protect indigenous spiritual practices.

Our findings point to several contextual factors that require attention in scaling up similar interventions. First, facilitators noted that it took time to build trust and overcome expectations of a didactic teaching approach. This issue may be particularly acute in settings with a history of oppression and paternalistic public health initiatives. Future intervention efforts should consider longer implementation time frames and pre-dialogue strategies for cultivating trust. Second, many participants questioned the approach that eschewed participant compensation and external funding for group projects to promote sustainability. Future research could explore strategies for responding to participants' economic needs while maintaining a focus on endogenous resources.

Limitations

Participating groups were not a representative sample of intervention communities; group priorities and experiences of the intervention cannot be extrapolated to whole communities, much less the region or the country. We observed collective evaluation activities in a small sample of participant groups in Santiago Atitlán. Other groups in Santiago Atitlán and Cuilco may have had different experiences.

Participants may have exaggerated positive changes in their lives and downplayed negative experiences to satisfy perceived expectations of the research team. We tried to mitigate social desirability bias by having data collectors emphasize confidentiality and our goal of learning about the intervention's strengths and limitations. Pre/post analysis of social capital, empowerment, gender attitudes, substance use, family relationships and connection to indigenous identity are planned to provide a more objective measure of change. Because of our focus on understanding how the intervention worked for highly involved participants, we did not explore the perspectives of those who chose not to participate or abandoned the intervention—an important consideration for future research.

It can take years to build critical consciousness and generate collective action to address structural causes of oppression (Kidd et al., 2018; Wiggins, 2012). The current study only addresses feasibility and key mechanism within the first year of intervention implementation. While groups tackled additional social determinants of health, such as misuse of technology, through outreach in their communities, our study was not designed to look at how group actions impacted the broader community. Further evaluation of the dialogic intervention over several years, that explores changes in direct participants and in the community, could provide insight into the sustainability of reported changes in participant behavior like reduced substance use, and additional mechanisms of change that might emerge from sustained community engagement. Such advances in knowledge would require funding bodies to support long-term projects to evaluate complex social interventions.

Conclusion

Indigenous advocates and researchers have argued for the need to promote agency within marginalized groups to improve conditions related to their health. Our findings suggest that the

dialogic intervention we piloted is a promising strategy to promote social cohesion and solidarity, participants' confidence in their own knowledge, reflection on the conditions that affect wellbeing, and agency of individuals and community groups to take actions to improve their personal and collective wellbeing. Our findings suggest that the intervention holds promise for engaging men in addressing problematic drinking and gender relations in a way that is strength-based and relevant to their own concerns. This fills a gap in evidence about the pathways through which community participation in mental health promotion can generate positive psychosocial outcomes. Our findings highlight the limitations of the approach for tackling structural inequities and the simultaneous need for efforts to address the oppressive conditions, such as poverty, discrimination, and marginalization of indigenous spiritual practices, that contribute to poor mental health and hinder collective change.

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Table 5.1. Number of individual interview participants by location and stakeholder group

	Santiago Atitlán		Cuilco		Total
	Community 1	Community 2	Community 1	Community 2	
Young women	4	3	n/a	n/a	7
Adult women	3	3	3	3	12
Older women	3	3	n/a	n/a	6
Young men	4	3	n/a	n/a	7
Adult men	3	3	3	3	12
Older men	2	2	n/a	n/a	4
Terapeutas mayas/tradicionales	1	3	2		6
Community health workers	0		3		3
Local facilitators	2		1		3
Total	60				

Table 5.2. Sociodemographic data for initial participants in each stakeholder group

Demographic group (number present at data collection)	**Average age** (range)	**Proportion who had completed primary education or higher**	**Proportion who spoke an indigenous language**	**Proportion ever married/ living with a partner**	**Proportion with children**
Young women, Santiago Atitlán (8)	25 (19-39)	7/8	8/8	1/8	1/8
Adult women, Santiago Atitlán (9)	34 (26-65)	4/9	9/9	9/9	9/9
Older women, Santiago Atitlán (11)	64 (52-74)	0/11	11/11	11/11	11/11
Young men, Santiago Atitlán (9)	23 (18-30)	9/9	9/9	0/9	0/9
Adult men, Santiago Atitlán (24)	41 (26-55)	14/24	24/24	23/24	23/24
Older men, Santiago Atitlán (8)	70 (51-78)	0/8	8/8	8/8	8/8
Terapeutas mayas, Santiago Atitlán (all women) (7)	55 (37-65)	1/6[b]	7/7	7/7	7/7
Health outreach workers, Santiago Atitlán (10 women, 5 men) (15)	31 (24-42)	15/15	15/15	Not reported	Not reported
Adult women, Cuilco (22)	36 (23-51)	3/22	4/22	22/22	22/22
Adult men, Cuilco (27)	39 (25-64)	12/27	2/22[c]	23/27	26/27
Terapeutas tradicionales, Cuilco (1 man, 8 women) (9)	55 (43-84)	0/9	3/9	9/9	9/9
Health outreach workers, Cuilco (all men)	29 (23-34)	10/10	1/10	5/10	5/10

Note. Demographic data was collected at the first meeting of each group and does not represent all participants throughout the intervention period. Excluding occupation-specific groups, all but one man in Cuilco reported agricultural occupations and all women in Cuilco reported being homemakers. Men in Santiago reported a mix of agriculture, artisanry, teaching, manual labor, student, and service occupations. Women in Santiago reported exclusively homemaking, artisanry and student occupations.

Table 5.3. Examples of group actions corresponding to each category

Category	Example(s)
Goals for individual behavior change	- Showing verbal appreciation for wives and reducing frequency of anger (Adult men, Santiago Atitlan) - Reducing *machismo* & improving communication with wives (Adult men, Cuilco) - Reducing alcohol use, cyber-bullying & money spent on mobile phone data (Young men, Santiago Atitlán) - Going out for a walk to prevent headache or *ch'ubic* (excessive thoughts/worries) (Adult women, Santiago Atitlán) - Reducing time spent on mobile phones (Adult women, Santiago Atitlán) - Plan time for relaxation outside of work (Community health workers, Cuilco)
Advice & emotional support	- Providing informal, one-one-one advice to youth about alcohol use (Older men, Santiago Atitlán) - Speaking to children at the local school about the importance of traditional knowledge (*Terapeutas mayas*, Santiago Atitlán) - Publishing radio spots the negative influence of mobile phones and internet (Young women, Santiago Atitlán) - Discussing traditional teachings on how to avoid *Ch'uj k'aslimaal* (life without purpose) with acquaintances and passing knowledge to grandchildren (Older women, Santiago Atitlán)
Social & recreational gatherings	- Meeting regularly to play basketball (Young women, Santiago Atitlán) - Intergenerational dialogue event (Multiple women's groups, Santiago Atitlán) - Community event with women outside the group, including sports, crafts, and embroidery (Adult women, Cuilco) - Group event for men and their children (Adult men, Cuilco) - Group trip to the hot springs (Multiple groups, Cuilco) - Group barbeque (Adult men, Cuilco) - Community-wide celebration during final month of the intervention (All groups, Cuilco)
Community Service	- Installing running water and drainage in the home of an older woman whose husband had alcohol problems and who could no longer walk easily to collect water from the lake
Livelihood skills	- Learning candle-making and traditional embroidery skills (Young women, Santiago Atitlán)

Table S5.1. Attendance

Region	Group	Number of meetings	Average # of participants per meeting (range)
Santiago Atitlán	Young women, Community 1	12	7 (3-12)
	Adult women, Community 1	12	7 (4-9)
	Older women, Community 1	10	5 (4-7)
	Young men, Community 1	10	7 (4-12)
	Adult men, Community 1	9	8 (4-12)
	Older men, Community 1	9	4 (3-8)
	Young women, Community 2	17	11 (5-21)
	Adult women, Community 2	11	8 (4-26)
	Older women, Community 2	11	7 (4-17)
	Young men, Community 2	7 †	5 (3-6)
	Adult men, Community 2	17	7 (3-15)
	Older men, Community 2	10	5 (4-7)
	Terapeutas mayas, Community 1	4 †	4 (3-6)
	Terapeutas mayas, Community 2	11	7 (4-9)
	Health outreach workers	2‡	11 (7-15)
Cuilco	Young women, Community 3	N/A§	N/A
	Adult women, Community 3	15	8 (3-15)
	Older women, Community 3	N/A§	N/A
	Young men, Community 3	N/A§	N/A
	Adult men, Community 3	12	9 (5-16)
	Older men, Community 3	N/A§	N/A
	Young men, Community 3	N/A§	N/A
	Terapeutas tradicionales, Community 3	11	6 (4-9)
	Young women, Community 4	N/A§	N/A
	Adult women, Community 4	11	12 (7-16)
	Older women, Community 4	N/A§	N/A
	Young men, Community 4	N/A§	N/A
	Adult men, Community 4	11	8 (4-12)
	Older men, Community 4	N/A§	N/A
	Terapeutas tradicionales, Community 4	4¶	7 (5-8)
	Health outreach workers	10	9 (8-10)

Note: Some groups planned additional activities in the community that are not included in attendance and meeting frequency

† Groups were discontinued due to non-attendance at 2 consecutive meetings

‡ Discontinued at discretion of supervisor, citing interference with workload

§ Not convened due to recruitment difficulties

¶ Discontinued due to scheduling difficulties

Table S5.2. Number of groups prioritizing issues for action within each thematic category

	Santiago Atitlán			Cuilco				
Category	**Men's groups (6 groups)**	**Women's groups (6 groups)**	***Terapeutas* (2 groups)**	**Men's groups (2 groups)**	**Women's groups (2 groups)**	***Terapeutas* (1 group)**	**Community health workers (1 group)**	**Total (20 groups)**
Substance use[†]	6	5	2	1	1			15/20
Family relationships[‡]	4	4		2	2	1	1	14/20
Emotional distress[§]	1	6		1	1		1	10/20
Negative use cell phones & internet	3	3	1					7/20
Loss of traditional values[¶]	3	2	2					7/20
Machismo (masculine gender norms)				2	1			3/20
Domestic violence		1			2			3/20
Early marriage	1	2						3/20
Transmission of *naoj*[††]		1	1					2/20
Economic problems	1	1						2/20
Interpersonal relationships[‡‡]	1						1	2/20
Physical Illness						1		1/20
Talking about one's problems			1					1/20
Theft	1							1/20
Negative desires	1							1/20
Self-esteem							1	1/20

Note: Some groups prioritized multiple issues that fell into the same category

[†]Includes personal use and use by male partners

[‡]Includes partner communication, relationships and/or understanding (5 groups); jealousy (3 groups); infidelity (2 groups); family problems (1 group); children's disobedience (1 group); family separation/divorce (1 group); family neglect (1 group)

[§]Includes *ch'ubic* (Tz'utujil idiom of distress characterized by excessive thoughts/worries, 4 groups), headache (understood to be a somatic symptom of emotional distress, 2 groups) *nervios* (Spanish term meaning nerves, 2 groups), *Nuq'ut rii* (Tz'utujil idiom of distress characterized by guilt, sadness, chest pressure, 1 group), *Ch qjik riyuon* (Tz'utujil idiom of distress characterized by incoherent speech and understood to arise from a spiritual disconnection, 1 group), worries (1 group), and depression (1 group)

[¶]Includes living life without purpose (2 groups), loss of respect (1 group), not valuing one's word (1 group), impatience (1 group), negative influence of schools (1 group), *itz* (Mayan ceremonies performed to hurt others, which the group described as generating distrust and loss of respect for ancestral practices), imposed beauty standards (1 group), and laziness (1 group)

[††]Tz'utujil term referring transmission of traditional wisdom

[‡] Includes interpersonal relationships (1 group) and bad friendships (1 group)

CHAPTER 6. GENERAL DISCUSSION

This thesis contributes to efforts to shift the paradigm of global mental health research (Cosgrove, et al., 2020) by centering indigenous perspectives on mental health and wellbeing. It does so by a) documenting indigenous understandings of men's wellbeing in Santiago Atitlán, Guatemala, b) documenting local perspectives on the factors that influence men's wellbeing in Santiago Atitlán and Cuilco, Guatemala, and c) generating evidence on the feasibility and key mechanisms of an intervention that recognizes indigenous knowledge in the planning of strategies to promote wellbeing in Guatemala. The findings presented here support calls for research evaluating culturally grounded strategies for wellbeing promotion (Kirmayer & Swartz, 2013; Okamoto et al., 2014) and address calls for research into interventions that target the social determinants of mental health (Lund, 2020). Findings also provide insight into the wellbeing of indigenous men in Guatemala, addressing a recognized gap in research on the unique intersectional experiences of indigenous men (George et al., 2019; Rice et al., 2021). Taken together, the research findings urge greater attention to indigenous perspectives in the planning of health and development agendas and greater attention to men's wellbeing in efforts to promote maternal and child health. Findings also raise important considerations about the limitations of mobilizing marginalized communities in Guatemala to address structural causes of poor health without simultaneous efforts to generate accountability among actors in positions of power to address the policies that contribute to ill-being. These include economic policies that generate resource insecurity among Guatemala's indigenous population, school curricula that discount indigenous knowledge, and unregulated alcohol sales.

The research presented in this thesis illustrates an alternative approach to global mental health research and intervention than centers local understandings of wellbeing and local

authorship of strategies to promote wellbeing. Chapter 3 documented the use of FCM with a large sample of men, women, and *terapeutas Mayas* to systematize local knowledge in remote and indigenous communities in Guatemala regarding the factors that are understood to influence men's wellbeing. Findings from FCM highlighted local understandings of the key importance of family and social relations for men's wellbeing in both Santiago Atitlán, a municipality with a primarily indigenous population, and Cuilco, a municipality where the majority of the population identifies as ladino. This builds on previous research documenting the importance of family and social relations for the wellbeing of indigenous peoples internationally (Butler et al., 2019; Gall et al., 2021; Kirmayer, Sehdev, et al., 2009; Vera Noriega, Bautista Hernández, & Tánori Quintana, 2017) and for populations throughout Latin America (Rojas, 2020), as well as growing recognition in other parts of the world of the importance of social conncetions for happiness, health and longevity (Johnson & Acabchuk, 2018). Findings from Santiago Atitlán also illustrated ambivalent views of the impacts of income and formal schooling on indigenous men's wellbeing, illustrating concerns about the potential of wage economies and rising access to formal schooling in undermining family and community relations and transmission of ancestral knowledge and values. These findings echo concerns raised in other indigenous contexts regarding the role of wage labor and formal education in eroding traditional social ties and cultural education (Butler et al., 2019; Kral et al., 2011).

The data from qualitative interviews presented in chapter 4 further elaborated on these findings, illustrating the interdependent nature of men's wellbeing and the wellbeing of their families and communities; KIIs also highlighted the social and structural forces that are understood to influence men's wellbeing in a context of economic marginalization and rapid social change. These included unregulated alcohol sales, hegemonic gender norms that threaten indigenous men's

wellbeing, devaluation of indigenous knowledge in the context of rising access to formal schooling, and declining community solidarity in the face of globalization and greater access to wage economies. Together, the findings of FCM and KIIs illustrate the poor fit of individualized and decontextualized evidence-based mental health programs developed in Western contexts for addressing the key concerns of local communities in Guatemala regarding men's psychosocial wellbeing. These findings support calls for expanding research on psychosocial interventions, including those that foster indigenous forms of resilience and healing (Kirmayer & Pedersen, 2014). More specifically, the findings call for family and community-based mental health promotion interventions that strengthen family ties, community solidarity, and transmission of indigenous knowledge. Findings also support calls for a shift in the development paradigm away from a focus on neoliberal economic development toward a focus on indigenous notions of wellbeing that emphasize social reciprocity (Acosta, 2015; Peredo, 2019). This shift will require better indicators of indigenous wellbeing in surveys used to measure development progress that emphasize indigenous culture and values rather than indicators created on the assumption of the universality of western development paradigms (Yap & Yu, 2016). Consideration of the tension highlighted by participants in Santiago Atitlán between formal schooling and transmission of indigenous knowledge suggests greater efforts must be made to incorporate indigenous knowledge, values, and ways of knowing within formal education systems (Bartlett, Marshall, & Marshall, 2012; Munroe, Borden, Murray Orr, Toney, & Meader, 2013). There are numerous examples of mental health promotion interventions in indigenous contexts that are centered around transmitting traditional knowledge, values, and cultural practices to youth (Allen et al., 2018; Barnett et al., 2020; Carlos et al., 2022; Cwik et al., 2019; Langdon et al., 2016). These may serve as a starting point for incorporating indigenous knowledge within school curricula.

The findings from KIIs also emphasized community views of the importance of engaging indigenous men in community groups where they can voice their perspectives and exchange ideas with others as a route to combatting discrimination and restoring self-esteem and agency to these marginalized populations. Chapter 5 presented a process evaluation of a psychosocial intervention that theoretically aimed to address many of the social and structural determinants of men's wellbeing that were highlighted in chapters 3 and 4, including building community social cohesion, providing a platform for sharing indigenous knowledge, and supporting community members to generate strategies to address other recognized influences on wellbeing. Findings illustrated the potential of a dialogic intervention for addressing key social determinants of psychosocial wellbeing, including social cohesion and community solidarity, empowerment, alcohol consumption, and gender norms. Results of the process evaluation also documented how groups in Santiago Atitlán drew on and fostered indigenous traditions of community solidarity and sharing of advice in planning actions to promote wellbeing, suggesting the intervention can support culturally meaningful solutions in indigenous contexts. The process evaluation findings highlighted the importance of participants having a space where their opinions are valued, and they are empowered to express themselves—ingredients they described as missing in other local health programs. These findings fit with calls for a transformation in how community mental health is conceptualized, placing greater emphasis on safe social spaces where the knowledge of non-mental health professionals is valued and community members "exercise agency to improve the conditions that they feel impact their mental health" (Burgess & Mathias, 2017, p. 218). These findings support claims that community engagement in research and planning of health interventions can address important influences on psychosocial wellbeing, regardless of the specific strategies or actions that result from the process (Kral & Idlout, 2009).

The evaluation of a systematic approach for engaging communities in planning culturally grounded solutions also offers a pathway for overcoming a major methodological limitation of evaluation research on culturally grounded interventions. In most instances, interventions are understood as the specific activities that groups engage in and, when those are tailored to small cultural groups, it becomes difficult to conduct rigorous evaluations with sufficient sample sizes (Ivanich et al., 2020; Whitbeck et al., 2012). The process evaluation presented in this thesis documents how the *process* of community engagement in tailoring culturally grounded strategies for wellbeing promotion—the dialogic intervention—can be systematized and applied to large samples, while the specific activities carried out by groups will vary. This offers potential for large-scale impact evaluation (Andersson, 2017).

Process evaluation findings also documented key limitations and challenges of the dialogic intervention. These included feelings of powerlessness experienced by marginalized community groups to challenge structural influences on wellbeing, including alcohol sales, economic instability, and marginalization of indigenous forms of spirituality. This adds to previous research documenting the difficulties of addressing power differentials through mental health interventions that target the most marginalized community members (Petersen, Baillie, Bhana, Health, & Consortium, 2012). Findings add to a growing body of scholarship that looks critically at the role of local participation in international development (Cooke & Kothari, 2001). One of the key criticisms leveled against the participatory development paradigm is that ‘‘the theoretical ideal of participation is often not functioning as the tool for liberation and distribution of power that its rhetoric suggests” (Christens & Speer, 2006, p. 3). Critics argue that the idealistic rhetoric of empowerment and emancipation embedded in arguments for participatory research minimizes the difficulty of challenging local power differentials and shifts the responsibility for addressing

inequities onto marginalized groups (Christens & Speer, 2006; Cooke & Kothari, 2001). Scholars have suggested, based on the mixed success of community mobilization interventions, that there is a need for greater attention to how interventions can foster social and political contexts that support the efforts of marginalized community groups, including government accountability to citizens to translate community efforts into action at the policy level (Burgess & Mathias, 2017; Campbell & Cornish, 2010; Christens & Speer, 2006).

Findings also documented the slow process of building trust and shifting to dialogue-based learning, highlighting a need for funding to support longer implementation timelines. This adds to previous literature highlighting the lengthy process of community engagement in intervention design in other settings (Kidd, Davidson, Frederick, & Kral, 2018), while highlighting particular challenges in the Guatemalan context—including social distrust, fear of social exclusion, and political divides within communities. Creating a supportive environment for dialogue-based, peer-to-peer learning that prioritizes local knowledge and supports community autonomy will require global funding bodies to expand their scope—including increasing funding timelines for interventions that take place over several years and flexibility to accommodate community priorities and strategies during rather than prior to research.

This thesis also provides research insights into a very neglected topic in global health research: indigenous men's psychosocial wellbeing. Research findings illustrated community views of the harmful effects of hegemonic gender norms on the wellbeing of indigenous men, building on limited research documenting the harmful effects of rigid gender norms on men's own mental health in other contexts (Way et al., 2014). Findings also highlighted local perspectives on the interconnected nature of men's wellbeing and the wellbeing of their families and the role of men's distress in leading to family conflict, violence, and neglect. These findings are consistent

with epidemiological research documenting associations between male depression, alcohol abuse, domestic violence perpetration, and reduced contributions to caregiving (Barker et al., 2011; Contreras et al., 2012; Fleming et al., 2015). Given that malnutrition and domestic violence are key issues affecting maternal and child health (MCH) in Guatemala (Chomat et al., 2015; Ministerio de Salud Pública y Asistencia Social (MSPAS), Instituto Nacional de Estadística (INE), et al., 2016), our findings suggest that tackling men's distress could be an important route for promoting MCH.

Finding from KIIs carried out in Santiago Atitlán suggest that MCH programs that exclude men will not only be limited in their impact but may further alienate men who are already facing social and economic marginalization, with negative repercussions for the whole family. These findings call for greater inclusion of men's psychosocial wellbeing within global health and development agendas. While the importance of engaging men in addressing gender inequities has been recognized (Jewkes, Flood, & Lang, 2015), and recent efforts have been made to engage men in promoting women's health during the perinatal period as a strategy for promoting maternal mental health (Yargawa & Leonardi-Bee, 2015), most interventions engage men in an instrumental role in supporting women's health, without consideration for their own wellbeing. The process evaluation of a group dialogic intervention included in this thesis found that men's groups spontaneously engaged in reflection and action around substance use, gender norms and partner relationships when men's own wellbeing was placed as the focal point of the intervention. This suggests the potential of the intervention approach for simultaneously engaging men in addressing their own wellbeing and the wellbeing of their families. This is responsive to a documented public health challenge around engaging men in interventions where they are framed as instruments of women's health (Casey et al., 2013). Findings also address calls by indigenous groups and scholars

to move away from deficit-based approaches to health programming toward engaging communities in determining their own priorities and strengthening indigenous sources of resilience (Bourke et al., 2010; Kirmayer, Sehdev, et al., 2009; Pyett et al., 2008). However, to date, research on participatory groups and dialogic interventions has primarily been conducted within the framing of pre-specified health issues (Clarke et al., 2014; Nair et al., 2020; Prost et al., 2013; Tripathy et al., 2010). The fact that most men's groups chose to focus on substance use, emotional health, and gender-related family dynamics (i.e., partner communication, domestic violence, early marriage) within a wellbeing framework suggests the potential of a holistic wellbeing focus for tackling some of the important issues facing indigenous communities. Findings suggest that engaging men in reflection around their own wellbeing may be a promising strategy for engaging men in addressing the alarmingly high rates of IPV in Latin American and around the world (Garcia-Moreno, Jansen, Ellsberg, Heise, & Watts, 2006).

Limitations

Each of the studies included in this thesis has its own set of limitations. FCM documents community views of the determinants of wellbeing—a perspective that is often lacking in health research—but does not empirically test these views of causality. While the method documented nuanced indigenous perspectives on key factors that are understood to influence wellbeing, maps only accessed culturally salient concepts that can be easily discussed in a group format. Moreover, the mapping process did not allow us to document in-depth participant understandings of the meanings of concepts included. Furthermore, the analysis process, which entailed thematic grouping of concepts across maps, shed light on the challenge of demarcating discreet themes while capturing interconnected understandings of health, spirituality, and psychosocial wellbeing within the Mayan cosmovision. Complementing FCM with KIIs overcame some of these

limitations, allowing for a more in-depth exploration of key concepts and pathways that emerged through FCM, and providing opportunities for additional concepts to surface through questions that encouraged participants to tap into local histories and prototypes of wellbeing. Nevertheless, the study that used KIIs was limited in its focus on the views of primarily older community members and practitioners of Mayan medicine. It is unclear to what extent the views of KII participants are shared by younger community members in Santiago Atitlán. A high rate of refusal among individuals contacted to participate also suggests certain segments of the population may have been excluded from representation due to distrust toward participating in research.

The process evaluation provided an opportunity to explore how some of the key influences on wellbeing identified through FCM and KIIs (i.e., lack of spaces for men to access social support and contribute to community dialogue, social isolation, discrimination) might be addressed through a dialogic intervention that focused on local priority setting and generation of local strategies to promote wellbeing. While initial qualitative results were promising, the study did not include a quantitative assessment of psychosocial outcomes. The process evaluation also did not document the views of those who dropped out of the intervention or chose not to participate. These perspectives would build a more nuanced understanding of who participates, who is excluded, and less favorable perspectives on the intervention itself. Moreover, the process evaluation was conducted after only 1 year of intervention implementation, and it is well recognized that longer implementation time frames are often needed to achieve collective empowerment and collective action (Wiggins, 2012, p. 369).

Across all of the studies, my positionality as a white North American woman with a high level of formal education undoubtedly shaped the questions I chose to ask and the way I interpreted the research data. I explicitly sought out ways to incorporate indigenous and Guatemalan

perspectives in the planning of the research, analysis of data, and interpretation of research findings. Indeed, the focus on men's wellbeing arose from priorities identified in communities where my colleague Anne Marie Chomat was conducting research on promoting women's psychosocial wellbeing. Men, women, and community leaders in the indigenous communities where she has long-standing relationships had repeatedly voiced the need to work with men to address important upstream influences on women's wellbeing—including violence and substance use—as well as men's own wellbeing. My PhD research was guided from its inception by this locally identified need. My decision to focus on wellbeing rather than specific risk factors came after careful consideration of the views of international scholars calling for holistic strengths-based approaches to promoting health and wellbeing in indigenous contexts (Bourke et al., 2010; Kirmayer, Sehdev, et al., 2009; Pyett et al., 2008). The research design, including specific communities where we chose to work, was planned in close collaboration with colleagues from the *Instituto de Salud Incluyente (ISIS),* a Guatemala-based institute working to transform the local health system to address the upstream determinants of health and promote health equity, and *Proyecto Buena Semilla,* a Guatemala-based collective that aims to support self-determination and community voices in promoting the wellbeing of marginalized groups in Guatemala. All research methods and recruitment strategies were decided in collaboration with *ISIS, Buena Semilla,* local health departments, community leaders, and local research team members. I led the data analysis across the studies but included steps for triangulating perspectives with collaborators in Guatemala, particularly men and women from the local communities where the research took place. All manuscripts included in this thesis were written with Guatemalan co-authors, including members of the indigenous community in Santiago Atitlán. The process of co-authoring the manuscripts included sharing findings, re-analyzing data when necessary to address the concerns

of co-authors, and incorporating the interpretations of all co-authors in discussing the implications of findings. Nevertheless, it must be recognized that my role as the lead researcher introduced non-indigenous ideas and ways of knowing throughout the research process. Some scholars have suggested that research with indigenous communities must be led by indigenous scholars (Aveling, 2013). I hope my own research serves as an imperfect but meaningful step in working toward the goal of centering indigenous voices, despite the inherent contradiction of my role in the research as white North American woman.

Directions for Future Research

The diversity of indigenous groups within Guatemala and Latin America warrants future research exploring understandings of indigenous men's wellbeing among other ethnolinguistic groups and communities with divergent historical and contemporary experiences of oppression and cultural change. Moreover, future research would benefit from exploring in depth the perspectives of young adult populations. Ultimately, intergenerational perspectives are needed to build strategies for the transmission of traditional knowledge and values that was deemed to be of great importance by the participants in the studies presented here.

Findings from the qualitative data included in this thesis (FCM, KIIs) informed development of a quantitative survey instrument to measure the impact of the dialogic intervention on psychosocial outcomes, including measures of personal wellbeing, self-esteem, self-efficacy, psychological distress, hopelessness, suicidal ideation, substance use, sense of cultural identity, social capital, partner and relationship quality, attitudes and behaviors toward gender and fatherhood (among men), and attitudes and behaviors related to domestic violence. Pre/post-intervention data have already been collected from participants using this survey instrument. Analysis of these data will provide insight into the impact of the pilot dialogic intervention

described in this thesis. Findings will complement qualitative findings from the process evaluation regarding the mechanisms of change and psychosocial outcomes arising from participation in the intervention.

Further evaluation of the dialogic intervention over longer time periods will reveal the extent to which longer implementation periods can compensate for implementation challenges. In Santiago Atitlán, the local facilitator has sustained engagement with men's groups in a process of dialogue and community action in the period since the intervention was implemented. This presents an opportunity to explore the experiences and outcomes of the groups over several years and to explore key ingredients for the sustainability of the intervention beyond a period of close involvement by the research and implementation team. Future research could also explore whether incorporating content specifically aimed to generate critical reflection on oppression of indigenous cultural practices and spirituality might lead to more explicit strategies aimed at cultural revitalization in contexts of widespread social stigma surrounding expressions of indigenous identity. Process evaluation findings highlighted how the social and political context can inhibit groups from taking actions to address issues that affect wellbeing within the community. Within a context where advocacy efforts are often met with threats and suppression (Caxaj et al., 2014; Petzey, 2022) and where practitioners of Mayan medicine experience discrimination and violence (Garrard, 2020), engaging marginalized community members in dialogue groups will likely be insufficient to tackle larger structural sources of oppression that threaten wellbeing. Future iterations of implementation and evaluation could integrate the intervention with other community mental health competencies proposed by Burgess and Mathias (2017). Burgess and Mathias (2017) argue that community led action will be most effective when local groups are connected, through "linking social capital" to more powerful actors who can advocate on behalf of community

members and provide access to external resources. Taking a multisectoral approach that builds accountability of local authorities to tackle structural issues identified by dialogue groups (such as unregulated alcohol sales) is needed but will depend on political will.

Future research directions include scaling up the intervention and evaluating impact through a community-led cluster RCT, which allows for measurement of the impacts of the intervention on the entire community, not just active participants in the dialogue groups. The goal of the intervention is to create community-wide change in wellbeing and its upstream influences, including social cohesion, gender norms, discrimination, substance use, and violence. Participants in the process evaluation described changes that are likely to affect the broader community, and a community-led cluster RCT will allow for measurement at that level.

Conclusion

The key implications of this thesis are twofold. First, it addresses calls to center indigenous perspectives in research and interventions to promote mental health and wellbeing. Second, it provides insight into the perspectives of communities in Guatemala on the meaning of men's wellbeing and the forces that shape men's wellbeing—a neglected topic internationally. It highlights community understandings regarding social, economic, and cultural change, and particular forms of suffering experienced by indigenous men. The findings urge greater attention to men's wellbeing in public health agendas, and inclusion of men's wellbeing as an important driver of MCH.

The findings also provide evidence around implementation challenges and key mechanisms of a dialogic intervention that systematizes the process of engaging communities in priority setting and implementation of local strategies to promote wellbeing. The process evaluation presented in chapter 5 documents the promise of the approach for addressing social

cohesion, community solidarity, individual empowerment, individual alcohol consumption, and gender norms, while documenting limitations of the approach for addressing structural inequities that influence wellbeing. The process evaluation surfaced the challenge of working with the most marginalized community groups to tackle issues such as unregulated alcohol sales and stigma surrounding indigenous forms of spirituality in a context where those participating in collective actions challenging economic interests have faced threats, violence, and violations of their rights. Efforts to empower marginalized groups must not be understood as a silver bullet to tackle the complex and intersecting inequities facing indigenous groups, but rather a promising tool that must be used in a multi-pronged approach to tackle these issues. As De Leeuw (2010) argues, we must "question the capacity for isolated programs and policies targeting Indigenous peoples to address their addictions and mental health concerns. Comprehensive and meaningful decolonization of both Indigenous and settler communities is required in order to heal the deeper 'causes of causes' of health disparities…" (p. 293).

The findings from the research presented in this thesis serve as a starting point for thinking about conceptualizations of wellbeing and the social conditions that influence wellbeing in other indigenous contexts and the potential of participatory dialogic interventions to address these conditions in Guatemala and beyond. More research is needed to critically explore the potential of dialogic interventions to tackle social and structural conditions that influence wellbeing. This requires stepping away from idealistic rhetoric (Christens & Speer, 2006; Cooke & Kothari, 2001) and conducting rigorous evaluations to understand the strengths and limitations of such an approach within local contexts.

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