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Gold mining in Guatemala: community health and resistance amidst violence

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Graduate Program in Nursing
A thesis submitted in partial fulfillment of the requirements for the degree in Doctor of Philosophy
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GOLD MINING IN GUATEMALA: COMMUNITY HEALTH AND RESISTANCE
AMIDST VIOLENCE

(Thesis format: Integrated-Article)

by

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School of Nursing

A thesis submitted in partial fulfillment

of the requirements for the degree of

Doctor of Philosophy

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Abstract

Background: The Canadian mining industry has been linked to reports of environmental degradation, social insecurity and human rights violations. Due to a historical context of colonialism, genocide and state neglect, Indigenous populations may be particularly vulnerable to large-scale mining health threats.

Research Purpose: The overarching purpose of this investigation was to understand the influence of mining operations on the wellbeing of a Mam Mayan community in the Western highlands of Guatemala. Specifically, this study examined: (1) the political context in which mining operations are situated; (2) community health experiences; and (3) the role of resistance in shaping these political and health contexts.

Methodology: Indigenous knowledges and a critical paradigmatic lens informed the research design, an anti-colonial narrative analysis, employing participatory action research (PAR) principles. Data collection was determined in collaboration with participants and included focus group interviews, photo-voice and one-on-one interviews. A total of 54 men and women from 14 villages in the municipality participated in the research.

Findings: Macro-level findings revealed that community health challenges were embedded in intersecting, socio-politically complex landscapes. These conditions largely informed how local residents experienced the socio-cultural and economic changes occasioned by local mining operations. Community health, or meso-level experiences were reflected in a storied theme of *social unraveling*, characterized by a climate of fear and discord, and; embodied expressions of distress. In response to these threats, community acts of resistance revealed unique health strengths enacted through: a shared cultural identity; spiritual knowing and being; defending our rights, defending our territory; and *speaking truth to power*.

Discussion and Conclusion: Community health experiences were embedded in systemic and intersecting macro-level forces of oppression and inequity. At the meso-level, an overarching narrative of *social unraveling* revealed an intricate mesh of interconnected community health threats. Residents attributed increased militarization, conflict and violence to the presence of local mining operations. Embodied expressions of distress

were described as complex, severe and debilitating conditions of suffering. These findings suggest important implications for nursing and health policy and scholarship.

Keywords: Indigenous health; community health; Guatemala; mining; intersecting; social unraveling; violence; distress; embodied; conflict

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I also want to thank my parents for their unwavering belief in my abilities, for imparting in me the importance of education and a drive towards social justice.

Lastly, I want to thank Julian for being my partner in every way. Your faith in me is stronger than any obstacle. I could not dream of doing this without you.

Dedication

Para mi abuelita Mercedes, who has instilled in her family a zest for education, a vision for a better life against all odds, a spirit of survival against so many forms of oppression; for my grandparents Carlos, Carlos and Graciela, the Moscoso and Caxaj cousins, aunts, uncles, for being my window into my homeland, for keeping me there; my mother, who has instilled a timeless pride in my culture, in my background, in my skin, and a perseverance to do what is just, no matter how small; my dad, who taught me how to protest and sing – who understands the power of memory and indignation, and has shown me the strength of hope and suffering; my aunt Eugenia, my other mother, for her insight, her friendship and camaraderie. For my aunt Brisna and her husband Gerry, for being a role model for activism as optimism and intellect; my cousins Carla, Brisna – for making me believe in what I do, for being brave, for never forgetting, for being my personal heroes; for my Julian, who never lets me give up on myself. For my brothers (Carlos Colindres, Carlos Caxaj, Jorge, Victor) who know that working to be happy is speaking truth to power.

Gracias a los hermanos y hermanas de San Miguel Ixtahuacán. No hay suficiente palabras para expresar mi agradecimiento. . .

Chjonte.

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CHAPTER 1

INTRODUCTION

Throughout the past decade, Canadian large-scale mining has increased its influence on communities worldwide. By promoting lower environmental standards and ‘voluntary’ regulatory mechanisms for the sake of *development* or progress, Canadian mining companies have promised to deliver economic benefits that overshadow any potential negative impact. In contrast, many mining-affected communities, that is, communities in close proximity to mining operations, have pointed to a variety of harmful environmental, social and economic conditions occasioned by mining operations. Critics have highlighted Canada’s role as a major player in the mining industry in affecting foreign policy and corporate practices that contribute to environmental and human rights violations. Ultimately, in operating with little oversight or accountability both locally and abroad, this industry poses a profound threat to the health of local communities. This risk may be particularly pronounced in poor countries such as Guatemala with a strong history of violent impunity from prosecution and an ongoing history of colonial violence towards Indigenous populations. This context ultimately threatens communities’ rights to self-determination. In order to support the health of mining-affected communities, nurse scholars must be aware of how large-scale mining can impact community health. This focus is important in building a nursing mandate responsive to globalizing and systemic forces, such as transnational operations, that shape the health of a diversity of peoples.

The few studies that have specifically examined the health of mining-affected communities indicate that mining operations pose a threat to community well-being (Ahmad & Lahiri-dutt, 2006; Astete et al., 2010; Shriver & Webb, 2009; Stephens &

Ahern, 2002). This area of research, however, typically has focused narrowly on ecological contaminant risk assessments or monitoring (Donoghue, 2004); occupational stressors among mining workers' and their spouses (Sharma & Rees, 2007); and to a lesser extent, the mental health of women physically displaced by mining operations (Goessling, 2010). Fewer scholars have looked at the mental health and well-being of a mining-affected community as a whole, the role of violence and resistance in shaping these health experiences and the health implications of a community that *stays* in close proximity to mining operations as opposed to communities that are forced to relocate. This research aims to contribute to health planning, policy change and nursing practice responsive to the unique needs and priorities of mining-affected communities.

The Canadian Extractive Industry and Foreign Policy

Canadian mining is a powerful global actor representing over 75% of mining companies worldwide (Foreign Affairs and International Trade Canada, 2009). Widely successful in lobbying for financial incentives and corporate protection, the Canadian mining sector has operated with little oversight (Gordon & Webber, 2008; Kuditshini, 2008). Under a 'voluntary' self-regulation model, no external system of accountability is in place to ensure ethical conduct of these companies wherever they operate (Slack, 2012). The Canadian government has also played a leading role in promoting the interests of this economic sector through their influence on foreign policy. By promoting a pattern of liberalized trade and increased investor rights, Canada has strengthened mining companies' rights while undermining local communities' power and autonomy (Gilberthorpe & Banks, 2012; Gordon & Webber, 2008; Munarriz, 2008). In fact, a leaked report by the Prospectors and Developers Association of Canada revealed that

Canadian mining ranked the worst in occasioning environmental problems and human rights violations throughout the world (Whittington, 2010). Anecdotal reports indicate that while travelers could once expect a warm reception when a Canadian flag was visible on their belongings, this flag has become a reminder of top-down development projects imposed on communities, often provoking hostility (White, 2011). Due to the dominant role that Canadian foreign policy and Canadian corporations play in the nature of mining operations throughout the world, it is important that Canadian nurses examine and understand the global health implications of this industry. Learning from communities affected by Canadian mining operations may provide nurses with necessary insight to address the role of our government in contributing to global inequity. Further, such knowledge can foster a nursing standpoint towards global health that is able to address both positions of privilege and oppression in generating relevant and responsive programming for health promotion and social justice.

Research Purpose

The primary purpose of this thesis is to examine the political context in which a large-scale mining operation is carried out and the threat that the mine's presence poses to the health of a local Indigenous community, the Mayan Mam of San Miguel Ixtahuacán, Guatemala. A second purpose is to understand the role of resistance in promoting the well-being of this mining-affected community.

Significance of the Research

Exploring socio-political community resistance as a potential health promoting process is imperative. Among Indigenous populations throughout the world this focus may be particularly relevant given pervasive and on-going struggles for community

sovereignty and survival (Kirmayer et. al, 2000; Stout, 2005) in the face of ongoing colonialism such as is exemplified through transnational mining operations. More generally-speaking, while some researchers have explored individual and community strengths as health promoting processes (Averill, 2003; Ford Gilboe, Wuest, Merrit-Gray, 2005), few researchers have considered political mobilization, or *community resistance*, as an important aspect of community health. Community-based research projects that engage community members in the identification of health strengths and challenges may provide important insight into how to best support mining affected communities (Christopher, Gidley, Lectiecq, Smith & McCormick, 2008).

Nursing scholars have stressed the need to link environmental health threats to political contexts and to understanding community responses and capacity within this realm (Butterfield, 2002; Dixon & Dixon, 2002; Perron & Grady, 2010). This stance requires a multi-faceted understanding of the way environmental health threats are experienced and an examination of ‘root causes’ for the purpose of generating upstream health promotion partnerships. Looking specifically at industrial processes that can introduce environmental health harms and the political contexts that shape these health experiences can generate important insight towards the development of comprehensive health promotion strategies to support diverse communities.

By working in partnership with communities affected by mining, nursing researchers can help promote a more politically and culturally responsive nursing practice that is sensitive to specific challenges of diverse populations. More generally, it can inform a nursing mandate ready to challenge political and historical colonial processes that sustain health inequities and that ultimately shape the survival of Indigenous

communities worldwide (Bathum, 2007; Cameron, 2012; Kirkham & Browne, 2006). Learning from community strengths of mining-affected communities can provide for a means for nurses and other health care workers to build on the capacities and knowledge of these communities. This focus is vital in order to construct health promotion strategies that reflect the abilities and vision of diverse Indigenous communities throughout the world.

Social and Historical Context of San Miguel Ixtahuacán

The National Context

Guatemala is a country marked by a history of extreme neoliberal policies, systemic violence, and corporate and military collusion. In the 1950s, Guatemala's first democratically elected leaders ushered in progressive policies, including agrarian reform (Moye, 1998). These reforms were viewed as a challenge to transnational corporate interests in the country, provoking a CIA-backed coup that overthrew the administration, leading to decades of rule by a military dictatorship (Jonas, 2000). The new totalitarian regime, under the rhetoric of national unity and progress, perpetrated mass genocide resulting in the death of 200,000 people and the displacement of 1.5 million ([CEH] Guatemalan Commission for Historical Clarification, 1999; [ODHAG] Oficina de Derechos Humanos del Arzobispado de Guatemala, 1998; Central Intelligence Agency, 2013). Often referred to as the "scorched earth" campaign, 626 villages were decimated (CEH, 1999). Of note, 83% of the victims were Indigenous peoples. Although an armed resistance formed during this time, state and paramilitary forces were found to be responsible for 93% of killings and massacres (CEH, 1999). These acts of violence were exacerbated by the cold-war context. Under United States policy directive, the

Guatemalan state attacked its countries' leaders, labeling as communists and enemies of the state many professionals, educators, and community organizers seeking improved social conditions (Ball, Kobrak, & Spierer, 1999). As a result, the historical memory of Guatemalans is marked by a racist, genocidal past and the influence of transnational corporate interests, foreign interference, and neoliberal policy.

Since those years, "post-war" Guatemala has seen little improvement in equity, social conditions, safety, or justice for the majority of its citizens. It is estimated that 75% of the Guatemalan population lives in poverty (World Bank, 2000). Of the Indigenous peoples in Guatemala, which include diverse Mayan, Garifuna and Xinca groups, 90% live below the poverty line. Land distribution is marked by extreme inequity; the most recent data available indicate that 2.5% of farms in the country control 65% of agricultural land, while the remaining 88% of farms manage only 16% of the land (World Bank, 2000). Limited access to public services, infrastructure and poverty are reflected in nation-wide literacy levels of 39%, primary school-aged enrollment of 41%, and 50% child malnourishment ([IFAD] International Fund for Agricultural Development, 2005). These social indicators are consistently worse among Indigenous populations as a result of social exclusion, systemic discrimination and a legacy of colonization (Fenton, 2012).

While public health, nutrition and educational programs remained largely underfunded following the years of the genocide (Fenton, 2012), post-war Guatemala saw the development of increased 'market-friendly' policies encouraging the presence of transnational mining corporations. After the signing of the Peace Accords in 1996, the Guatemalan government yielded to pressure by the World Bank and pushed for deregulation and the liberalization of trade that would appeal to foreign mining investors.

Prior to the 1990's, mining concessions, particularly from 100% wholly owned foreign corporations, were relatively rare. Since 2000, however, mining has established itself as a key industry in Guatemala, comprising 95% of exploration and exploitation mining licenses in the country (Cuffe, 2005). Most notable was Legislative Decree 48-97, designed to attract foreign investors. This law reduced corporate royalties paid to the state from six to one percent and removed prohibitions on 100% foreign- owned companies (Shirley & Donahue, 2009).

For many Guatemalans, climate justice, a movement for global socio-economic and environmental equity (Roberts & Parks, 2009) is at the core of social reparation, poverty alleviation and an end to violent impunity. Various social movements have identified transnational mining corporations as a key human rights concern, due to the threat they pose to local economies, the environment and safety. Further, opposition to metal-mining is prevalent nation-wide. A public opinion study carried out by the Association for Research and Social Studies(AIES) (2010) found that 57% of the country's population was opposed to metal-mining in Guatemala, with only 22% of residents in favour. Within rural communities, 71% were opposed to this form of mining. The survey also revealed that over 70% of citizens felt that metal-mining negatively impacted water security and quality; forests; women's rights; human rights; and a variety of local economies. Further, 72% of respondents opined that the Guatemalan government did not have the capacity to monitor or regulate mining activities in the country ([AIES] Asociacion de Investigacion y Estudios Sociales, 2010). This is particularly relevant for rural populations and the agricultural labour force that make up respectively 51% and

40% of the population. Indigenous peoples, many of who rely on subsistence farming or small-scale agriculture for their livelihood are especially vulnerable (IFAD, 2005).

San Miguel Ixtahuacán and the Marlin Mine

San Miguel Ixtahuacán (SMI) is one of 29 municipalities located in the Department (province) of San Marcos. With a population of 794,951, San Marcos is situated along Mexico's eastern border and consists of mostly Mam Mayan; Kachiquel Mayan; Sipakapense Mayan; and solely Spanish speakers (Prensa Libre, 2011). The northwestern region of Guatemala, which includes San Marcos, houses the highest concentration of Indigenous peoples due to the displacement and dispossession that began with Spanish colonization in the 1500s, and was heightened during the years of the genocide, from 1960 – 1996 (Holden & Jacobson, 2008; CEH, 1999). Ironically, this area is now of significant interest to mining corporations as it is considered resource-rich in both gold and petroleum (Llewellyn, 2012).

San Miguel Ixtahuacán is comprised of 19 villages and 39 hamlets with a total population of approximately 35,276 people. Almost all residents are of Mam Mayan descent, while the neighbouring municipality of Sipakapa is comprised of mostly Sipakapense Mayan residents (Instituto Nacional de Estadística, 2010). It is estimated that 97.5% of residents in San Miguel Ixtahuacán live in poverty, 80% of whom live in absolute poverty (Van de Sandt, 2009). The large majority of residents are of a Christian faith, many of whom practice a syncretic spirituality which combines Christian and Mam spiritual practices. Local estimates suggest that a third of the population are practicing Catholics with the remainder being Christian Charismatic (renewalists, sharing

Pentecostal beliefs related to the holy spirit but not specific to one denomination), Pentecostal or Evangelicals (personal communication A. Lopez; FREDEMI, 2011).

The Marlin Mine, a Goldcorp operation, is situated in 87% of San Miguel Ixtahuacán (San Miguelense) and 13% of Sipakapense territory. Goldcorp, a company based in Vancouver, Canada, acquired operations from Glamis Gold in 1999. Largely facilitated by a 45 million dollar loan by the International Finance Corporation, construction of the mine began in 2004. In 2007, the project generated 907 million dollars in revenue ([BIC]Bank Information Centre, 2005; [CAO]Compliance Advisor Ombudsman, 2005; Van de Sandt, 2009). Studies in the region have detected high concentrations of heavy metals in water sources and individuals living downstream from the mine or in close proximity to the operations (Basu et al., 2010; Comision Pastoral y Ecologia (COPAE), 2010; Wauw, Evens, & Machiels, 2010). Since its initiation, the project has been highly contested by individuals in the municipality and the surrounding region, resulting in armed confrontations, targeted assassinations and conflict ([UDEFEQUA]), 2009; Imai et al., 2007; Vandenbroucke, 2008).

Concerns about the impact of the Marlin Mine by community residents came not only from the environmental, social or health threats many had experienced or witnessed, but also, from the threats posed to unique ways of governing, ways of life and relationships to the land present within the community. Without respecting the community's right to Free Prior and Informed Consent¹ for instance, the company had violated the community's right to self-determination. Thus, I sought to develop a research

¹ "Free Prior and Informed Consent recognizes Indigenous peoples' inherent and prior rights to their lands and resources and respects their legitimate authority to require that third parties enter into an equal and respectful relationship with them, based on the principle of informed consent." (From the Commission on Human Rights, Sub-Commission on the Promotion and Protection of Human Rights, Working Group on Indigenous Populations, Twenty-second session, 19-13 July 2004, p. 5)

approach that would incorporate the unique perspectives of local residents and consider the larger political contexts shaping these community members' health experiences.

Philosophical and Conceptual Underpinnings

This study was informed by Indigenous Knowledges and Critical Social Theory. I use the term Indigenous Knowledges (verus Indigenous knowledge) to reject an essentialized notion of Indigenous peoples and recognize the diversity and pluralism of thought of this population (Kovach, 2009). Critical Social Theory encompasses a variety of philosophical traditions that seek to critique oppressive social conditions and contribute to the betterment of society as a whole. Key assumptions of the critical paradigm are that: 1) assumed realities are shaped by taken-for granted historical 'facts' that merit further scrutiny and analysis; 2) claims to objectivity often reflect the privileging of truths among those in power; and 3) research and knowledge are profoundly social constructions, inherently political, and inseparable from personal experiences and values (Fontana, 2004; Habermas, 1973; Richmond & Ross, 2009). Critical nursing scholars maintain that: 1) social injustice is an on-going reality supported by a historical legacy of oppression (Schroeder & DiAngelo, 2010); 2) knowledge is inherently related to domination and resistance (Perron, Rudge, Blais, & Holmes, 2010); 3) determinants of health are not only physiological and behavioural, but also, social and political (Anderson, Rodney, Reimer-Kirkham, Browne, Khan, & Lynam, 2009); and 4) research and scholarship must address political injustices and contribute to a more equitable world (Kirkham, Reimer & Anderson, 2010). These ideas have important implications for how critical research is carried out. Nurse scholars have discussed the need to recognize and reflect on personal privilege; ensure that research is non-exploitative and provides meaningful benefits to

participants; develop research that is inclusive and participatory; and mobilize and inspire action aimed at the elimination of conditions that sustain inequality (Berman, Ford-Gilboe, & Campbell, 1998; Kirkham et.al, 2010; Perron, et. al 2010; Weaver & Olson, 2006).

Indigenous epistemologies also provide a standpoint for emancipatory knowledge (Denzin & Lincoln, 2008; Kovach, 2009; Smith, 1999) and may reflect spiritual, relational and ecological ways of thought and understanding (Meyer, 2008; Bishop, 1996; Castellano, 2000; Grande, 2008). Indigenous knowledge systems may also enable the assertion and reclamation of unique Indigenous histories and existence that have been traditionally negated by colonial processes. Further, they chart the potential and possibilities of communities that have been typically depicted as inferior (Thésée, 2006). Despite some observed overlap, Indigenous knowledges encompass varied epistemologies that are each bounded in local context, experiences and values (Meyer, 2008). The characterization of Indigenous knowledges as grounded in experience and local context is, in fact, a great strength, enabling the proliferation of pluralistic viewpoints that enrich and enhance humanity's ability to thrive and live in harmony in diverse surroundings (Shiva, 2008; Stephens, Porter, Nettleton & Willis, 2006). Indigenous knowledges are not an artifact of the past but a continuously evolving system responsive to the collaborative input of community members and their changing life conditions (Castellano, 2000). In a spirit of reciprocity, I worked to develop a research space such that the local knowledge of residents of San Miguel Ixtahuacán could inform both the research process and broader issues of representation and knowledge production (Kovach, 2009).

As noted by some scholars, Indigenous knowledge cannot be subsumed under any Western paradigm as these traditions are rooted in distinct and historically divergent schools of thought. The critical paradigm, like most academic perspectives, has developed from Western traditions and conceptualizations of science that have played a role in the construction of colonial relations (Grande, 2008; Kovach, 2009). Further, the authority of Western knowledge is premised on a denial of ancient and long-standing ways of knowing and expertise before the arrival of European colonialists (Thésée, 2006). For this reason, Indigenous knowledges are a unique and important component of local communities' resistance to colonial and imperial intrusions (Fanon, 1963). These epistemologies can make visible limitations and provide alternative viewpoints to Western hegemonic ideals (Castellano, 2000). As Smith (1999; 2005) notes, research is a site of contestation, in the epistemological and the methodological sense, and generally, as an organized scholarly activity that is deeply connected to power. While historically research with Indigenous peoples has been exploitative in nature, more recently, communities have engaged in research to work towards strengthening their communities and their right to self-determination.

Kovach (2009) refers to an insider/outsider dynamic between Indigenous Knowledge and Western thought and notes that important overlap does exist within the critical paradigm. This overlap presents the opportunity to use critical research as a worldview that can work in synergy with local Indigenous thought for the purpose of addressing historical oppression and working towards decolonization (Denzin & Lincoln, 2008; Grande, 2008; Kovach, 2009). This stance includes asking critical questions of the research process such as: "What research do we want done? Who will own the research?"

and “Who will benefit?” (Smith, 2000; p. 239). By engaging in this type of critical reflection, Western assertions of power such as the misrepresentation, essentialization and appropriation of Indigenous peoples and their values and cultures can be directly and continuously challenged.

Theoretical Lens

Throughout this study, I employed an anti-colonial theoretical perspective in order to understand how contemporary and historical mechanisms of colonialism threaten Indigenous peoples’ health, self-determination, and survival (Smith, 1999). From an anti-colonial perspective, there is a need to understand *universal* and *material* political injustices that a colonial system has imposed on Indigenous peoples throughout the world (Alfred, 2009; Churchill, 1999; Wesley-Esquimaux & Srolewski, 2004). This approach comes from a practical standpoint that acknowledges that despite the vast differences among Indigenous groups, most Indigenous peoples share experiences of violence, assimilation and appropriation that threaten their well-being (Fanon, 1963; Kirmayer, et al, 2000; Wesley-Esquimaux & Srolewski, 2004). An anti-colonial lens emphasizes the colonial and imperial roots of research that enabled the construction of the Indigenous Other (Smith, 1999). This process involves revisiting the meaning of taken-for-granted concepts within academia such as *science* and *democracy* (Denzin & Lincoln, 2008). An anti-colonial orientation to research has great potential to deconstruct and re-imagine Critical research traditions that may implicitly espouse Eurocentric assumptions about the world or misrepresent/under theorize issues important to Indigenous peoples (Denzin & Lincoln, 2008; Grande, 2008). Anti-colonial theory can also contribute to increased understanding of the ways in which Indigenous cultures and epistemologies operate as

sites of resistance, an issue that has not been adequately addressed by critical researchers (Browne, Smye & Varcoe, 2005; Smith, 1999).

As noted by many scholars, colonialism is not easily separated from other oppressive forces, such as neoliberalism and patriarchy, at times, forming complex political inequities, or ‘intersecting sites’ of oppression (Denzin & Lincoln, 2008; Razack, 2006). Acknowledging these political complexities requires the identification of oppressive hegemonic alliances that represent contemporary forms of colonialism. Examples may include free trade agreements that deny Indigenous claims to the land, and the commodification of Indigenous knowledge through appropriation of sacred teachings (Smith, 1999). As an anti-colonial lens aims to centre the experiences, perspectives and knowledge of Indigenous communities, it can contribute to the identification of alternative strategies and ways of thinking regarding neoliberal conservative logic (Denzin & Lincoln, 2009). While centering Indigenous knowledge, an anti-colonial perspective resists essentialized or static notions of Indigenous peoples and instead promotes an intellectual plurality that champions cultural autonomy, meaningful participation among research partners, and political self-determination (Schnarch, 2004; Smith, 1999).

Towards an Indigenous Methodology

Consistent with the theoretical and philosophical underpinnings of the study, principles of participatory action research were incorporated into the methodological approach.

Further, in order to capture the storied nature of participants’ accounts, I employed a narrative analysis. According to Sandelowski (1991), narrative approaches are premised on the assumption that stories are intrinsic to everyday life and that human beings are

inherently storytellers. Narrative approaches are relevant to nursing and compatible with the critical paradigm as stories have great moral, healing and emancipatory potential (Berman, 1991). Others have identified narrative processes as tactics and strategies to combat colonial representations, persevere culturally, politically and spiritually (Chadwick, 1996), and as a medicine that can contribute to healing (King, 2008; Wingard & Lester, 2001). Further, a critical orientation to narrative positions the researcher to consider the political nature of knowledge production and to work towards disrupting this status quo by being vigilant of which stories, or perspectives/accounts are privileged and which are not given the attention that they are due (Finley, 2008; Kovach, 2009).

According to Bishop (1996), storytelling can also be a culturally responsive means to ensure that participants' multiple truths and control over the research project are respected. Since Indigenous ways of knowing are often guided by experiential, interpretative and relational frameworks (Barton, 2004; Castellano, 2006; Kovach, 2009) story-based methodologies can facilitate the centering of Indigenous knowledge into the research process (Kovach, 2009). Barton (2004) writes that a narrative methodology makes the creative space between storyteller and listener/audience the focal point, enabling new opportunities for relational understandings and co-constructed meanings. Through dialogue then, storytelling can inspire shared understandings, collective histories, and further, capture the complex subjectivities of lived violence and injustices (Dillenburg, Fargas & Akhonzada, 2008; Smith, 1999). Narrating, or storytelling, then, can be an important site of meaning-making, and, through expression, or (re)-telling, can enable new possibilities and realities (Sandelowski, 1991). Brunanski (2009) however, cautions that Western approaches to narrative have privileged Western ways of knowing

in constructing stories as meaning-making units of the 'individual self' and as fixed within a chronological time-frame. In San Miguel Ixtahuacán, many community members actively collectivized their experiences and realities and emphasized the importance of this position. Thus, I worked to maintain a general vigilance of the colonizing mechanisms inherent in Western science (Absolon & Willet, 2005) and to build research spaces for collectivization of storied experiences throughout the research process.

Congruent with an anti-colonial research lens, I incorporated participatory action research principles in our research design in order to engage in meaningful collaboration, address power differentials, and work towards maintaining community ownership (Castleden et. al, 2008). Throughout the research process, I strived to establish reciprocal relationships, a sense of collectivity, meaningful participation and relevance to community members (Gatenby & Humphries, 2000; Hebert, Brandt, Armstead, Adams, & Steck, 2009; Soltis-Jarrett, 1997). These efforts were important in order to provide necessary flexibility and a democratic framework to foster meaningful partnerships, generate relevant findings, and inspire useful and beneficial outcomes in partnership with Indigenous communities (Christopher, Gidley, Lectiecq, Smith, McCormick, 2008; O'Neil, Elias, Westesicoot, 2005). Further, Critical scholars such as Gramsci (1971) and Freire (1970), in describing a scholarship which aims to not only understand, but also, change the world, influenced my interest in participatory approaches. A mutual sense-making towards collective action are what Reason and Bradbury (2013) have called the 'action turn,' in which knowledge-building, theory-development and action must be understood as inseparable elements of a participatory research process.

Given the emphasis on meaningful participation, many aspects of the research design were in constant revision, requiring on-going feedback, insight and ideas from community members. The development and refining of the research plan was heavily dependent on the feedback of community leaders and grassroots organizations in order to identify both logistical and safety concerns, as well as areas of interest and relevance to community members. Initial discussions to gauge the level of interest in a research project and the initial planning were carried out through two visits to the municipality, phone calls and email over a 2-year period. Planning was an iterative process that required me to be transparent about my skills and areas of expertise while also remaining flexible and responsive to the priorities of community members. Processes of recruitment, data collection, analysis and knowledge translation were largely shaped by dialogue with participants and group consensus.

Research Procedures

Recruitment and Consent Processes

Through the guidance of community leaders and grass-roots organizations, we developed a tentative recruitment strategy. Fourteen villages were identified as having rich and diverse experiences pertinent to the investigation, and of equal importance, being open to a community health study of this nature. By relying on community expertise and input to develop a snowball sampling strategy, recruitment became a site of knowledge co-construction and meaning-making (Noy, 2009). Through the incorporation of diverse leaders and institutions, we were able to ensure an adequate representation of men and women of diverse religious affiliations.

During my first visit to each village, I sought to explain the purpose of the study, introduce myself and to answer any questions the group might have. Once consent was received at the village-level, I would ask for participation from 4 to 6 volunteers in the village. In most cases, individuals would volunteer themselves; in some villages, the community would collectively decide whom they thought should participate. Overall, 56 participants, 15 men and 41 women, ranging from 18 to 68 were recruited. Letters of information were read aloud, often pausing, to give examples or to confirm that individuals understood certain aspects of the letter. In subsequent visits, I would remind participants again that they were under no obligation to participate. Participants were given an honorarium at the beginning of each month of data collection to prevent coercive retention in the study.

Data Collection

Several data collection strategies were proposed to participants. From these options, all participants selected group interviews and photovoice. Four individuals also chose to participate in one-on-one interviews. According to Wang (1999), photovoice serves three main purposes in the research process. This approach includes assisting individuals to reflect on and discuss particular community issues, encouraging group discussion on these issues and influencing socio-political conditions (e.g. policy decisions). This approach can foster the construction of compelling and poignant stories to affect change, and similar to focus groups, can provide a beginning framework to discuss community concerns. Importantly photovoice provides an important opportunity for participants to set the agenda/priorities throughout data collection as photos serve as a 'catalyst' for discussion throughout the process (Castleden et. al, 2008).

Similar to research carried out with Aboriginal homeless youth in Canada, I used “grand tour” questions to invite participants to first tell their stories concerning the phenomenon of interest (Brunanski, 2009). I then used active listening and ‘probes’ to elaborate on the telling of individuals’ stories and expand on relevant issues that came up during individuals’ telling or in addition to the initial story that individuals shared. Grand tour questions allowed me to initiate interviews with community members in a way that invited participants to prioritize the telling of what they deemed most relevant and important. Follow-up questions allowed me to encourage participants to elaborate on their experiences. Further it helped link their accounts to the specific focus of the investigation, specifically, how their experiences relate to a context of colonialism, mining, violence and resistance. All interviews were audio-recorded with the explicit and ongoing permission of participants. All photos were developed in duplicate so that participants would be able to retain a copy. In cases where photos of individuals were taken without their or their legal guardian’s permission the photos were excluded from the research. In keeping with PAR principles, conversations were a starting point to discuss what action would look like, that is, how we would use the data for the collective benefit of the community (Castleden et. al, 2008; Reason & Bradbury, 2013).

Data Analysis

A critical and anti-colonial orientation to narrative analysis emphasizes the interplay of agency with oppression and the personal with the political, with specific attention on the influence of historical and contemporary colonial forces (Kovach, 2009; Shajahan, 2005). By examining narrative elements of characters, motifs, intentions, and complexities (Barton, 2004; Smith, 1999) I engaged in constant reflection as to the interplay of

colonial settings and landscapes. In keeping with an anti-colonial lens, I strived to be attuned to intersecting oppressive forces and their 'fixed' or coercive positioning within colonial spaces (Fanon, 1963; Shiva, 2005). Further, in keeping with an overarching goal of decolonization, I sought to make the analytic process a space of transgression and an opportunity for shared empowerment (Smith, 1999; Chadwick, 1997). I strived to meet these aims by providing participants with a raw preliminary analysis of previous interviews before engaging in further interviews. By soliciting participants' feedback, revisions and reframing of the ideas that I presented, I attempted to develop a collaborative analytic process. Further, throughout group conversations, I posed questions and sought clarification in such a way that made my assumptions and positions of privilege accessible to participants for debate and speculation. These conversations were also important in informing a collective understanding of community health experiences. Through focus group discussions, participants and I collaboratively developed community-level patterns and experiences while contrasting unique cases and differences at both the village and municipality level.

Compatible with the mapping of the issues and ideas developed by participants, I employed McCormack's framework for narrative approaches to develop the analysis further (2000a). This framework involved multiple lenses: (1) active listening/engagement (2) identifying processes, (3) recognizing the context in which the story is told (4) and identifying unexpected events. This framework involved asking questions of the text such as: What is the message/lesson behind this story? How did this happen? How is this shaped by a colonial context? Why is this significant to individuals of San Miguel Ixtahuacán? These questions were also introduced into interview

conversations, follow-up meetings and phone calls in order to maintain an ongoing analytical conversation with participants throughout the research process.

After each interview, I would review my field notes and audio-recordings in order to develop a thematic summary of the meeting. With the input of community participants, these thematic summaries were further refined and reviewed along with subsequent transcripts and audio-recordings. Myself and two other Latin American Spanish-speaking women with knowledge of the political context in the region transcribed every interview. One of the women, a fellow Guatemalan, provided important insight into the use of colloquial language and the local context. The other woman, a Chilean who had studied the impact of mining operations in South America strengthened the analytic process by bringing this experience into the transcription process. Once all interviews were transcribed, I reviewed each audio-recording along with the text with the intent of capturing inflexions, emphasis and intended meanings not captured in the literal text. I would document these impressions throughout the transcript through track changes. Then, I would colour-code phrases and words in the text that I felt were indicative of the different narrative lenses described by McCormack. After this process, I would attempt to parse these narrative pieces together into a cohesive story by organizing the text into *abstracts* which might include a storytitle, orientation, narrative process, evaluation and coda. I was mindful of local values of collectivity, holism, complementarity and circularity/cycles in the framing and understanding of stories. Thus, the coda and narrative processes were far less important than the evaluation and intended meaning of stories told. Further, thematic organization was important in order to emphasize collective or shared (although diverse) experiences, beyond individual stories.

Positionality, Privilege and Voice

Key to developing a rigorous research process, I sought to engage in necessary and ongoing reflection about my positionality. Noy's (2009) conception of 'tourist,' an individual with "differentially distributed rights of mobility, sightseeing and accommodation" (p. 338) was useful in fostering an awareness of my positions of privilege. My fluency in English, access to a Western education, my Canadian citizenship and able-bodiedness for instance granted me access and entry throughout the research process. I attempted to interrogate these social positions by discussing these unfair conditions with community members. In personal reflection, I engaged in songwriting and journaling. While I knew these relational inequities could not be erased, I remained committed to transparently identifying these power differentials.

In some respects, it has been easier to talk about my privilege because it allows my voice to sound with authority, for my opinions and ideas to not be questioned or challenged as 'words of the wounded.' Answering questions such as "Why Guatemala?" or "Why mining?," as a result, have often been guarded. To speak my truth would be to let others take it away, for others to delegitimize what I hold dear. Yet it takes courage to speak with one's own voice, and to remain silent, would be to contribute to a hegemonic version of truth and knowledge.

So, what has attracted me personally to this area of research? I could talk for example of my family's history of disappearance and displacement, our/my refugeeness. I have cried sometimes, not just for the unspeakable violence Guatemala has faced, but also, for the death of ideas. The suppression of countless voices attempting to develop progressive ideas and solutions – public schooling, unionized labour, democratic

processes – these are dangerous ideas for a totalitarian state. Within a cold-war context, heroes are terrorists. Within a colonial state, diversity is weakness. In a neoliberal world, poor countries must assimilate their oppressors’ philosophy even though the game is rigged. I have seen the history of my country; where transnationals such as the United Fruit Company and Coca Cola have more say than an Indigenous community; where the poor are afforded no support yet are required to make way for ‘progress’. Seeing these opportunistic corporate ventures hand in hand with state violence, I am skeptical, to say the least, of so-called ‘development’ on capitalist terms.

Throughout this research, I have also sought to understand myself as an Indigenous person with a colonial history of my own. As a Mestiza person with a mixed European and Indigenous background, I have been hesitant to embrace my Indigenous identity, fearing that I may be appropriating the experiences of others more in touch with this background. Yet I have come to believe that silencing my Indigenous background would be to let colonialism run its course. My Q’uiche and Kachiquel (Mayan) ancestors were pressured to assimilate, to abandon their language and their customs. This research has been a beginning step for me to rediscover and honour my own Indigeneity and to begin to learn from the wealth of knowledge and traditions of present-day Maya that have survived more than 500 years of colonialism.

Dissertation Overview

In the following sections of this dissertation I will present chapters covering both key methodological aspects and study findings of this research project. In Chapter 2, I will discuss: (a) the political context in which large-scale mining is carried out; (b) common health challenges faced by mining-affected communities and; (c) central tensions

emerging from my efforts to carry out research in a collaborative manner with the community of San Miguel Ixtahuacán. Here, I further examine issues of positionality that influence the research process and outline key strategies and considerations that were instrumental in developing a genuine community partnership.

In Chapter 3, I examine issues of representation and co-construction as they relate to the authentic incorporation of Indigenous knowledge into the research process. Specifically, I outline aspects of Indigenous knowing, reflected in community members' accounts that transformed the research process. These areas included notions of holism, re-thinking development and a commitment to long-term change through transparency and co-construction.

By focusing on the systemic, intersecting and colonial contexts shaping everyday experiences, chapter 4 illustrates the role of large-scale mining in further endangering the health of San Miguel Ixtahuacán residents. In particular, participants revealed that an ongoing history of genocide, dispossession, gendered inequity and global oppression simultaneously enabled and exacerbated the health harms occasioned by the Marlin mine. In essence, interlocking sites of oppression intersected with the threats posed by local mining operations in presenting complex health contexts and challenges for the local community.

Lastly, in chapter 5, I discuss how the presence of mining activities have shaped everyday community health experiences. Participants accounts pointed to health experiences characterized by a *climate of fear and discord* and *embodied expressions of distress*. A *climate of fear and discord* was marked by a rupture in community bonds, divisiveness, mistrust, and a fear for basic safety while *embodied expressions of distress*

were characterized by physical, spiritual and emotional suffering. Symptoms of distress described by participants were often consistent with Western constructions of anxiety, depression, panic and post-traumatic stress and the Central American construction of *susto*. Participants' also revealed unique acts and sources of resistance that both promoted wellbeing but ironically, also made them vulnerable to company targeting.

In the following chapters, I will use the word 'we' to be inclusive of all co-authors. In the concluding chapter, I will return to discuss the research process and findings as a whole and return to the use of "I" to authentically express my personal reflections. Limitations of the research and implications for scholarship will also be discussed in this concluding section.

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CHAPTER 2

TENSIONS IN ANTI-COLONIAL RESEARCH: LESSONS LEARNED BY COLLABORATING WITH A MINING-AFFECTED COMMUNITY¹

The past decade has seen the emergence of a body of nursing research focusing on peoples marginalized by broad contextual forces, including historical and ongoing colonization (e.g., Berman et al., 2009; Browne & Varcoe, 2006). Scholars engaging in such research must confront multiple tensions. In this article we reflect on strategies for addressing these issues learned by conducting anti-colonial community-based research with a mining-affected Indigenous community. Research approaches such as these can be used to support nurses in meeting their obligations to safeguard and promote human life and dignity and to raise awareness about the root inequities that affect the health of communities globally (Canadian Nurses Association [CNA], 2009, 2011; International Council of Nurses, 1998).

The global dominance of the Canadian mining sector and its health implications underscore the importance of mining issues to both national and global nursing mandates. Research indicates that mining companies often threaten the well-being of host communities by violating Indigenous rights, operating without community consent, altering local ecosystems, triggering social conflicts and gendered violence, limiting access to food and water, and exacerbating poverty (Coumans, 2009; Gonzales-Parra & Simon, 2008; Imai, Mehranvar, & Sander, 2007; Simpson, 2009). The connections

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among environment, society, interpersonal relationships, and health are foundational to nursing knowledge (Chinn & Kramer, 2008). Therefore nurses are well positioned to address the threats that mining operations pose to well-being.

An anti-colonial lens is a way of theorizing, re-articulating, and challenging colonial relations (Dei, Hall, & Rosenberg, 2000). This perspective is important because the well-being of Indigenous communities is situated in historical and political landscapes (Alfred, 2009). Although employed for some time by academics (e.g., Fanon, 1963; LaDuke, 2005), anti-colonial thought has divergent origins stemming from a diversity of Indigenous knowledges embodied both physically and spiritually (Shahjahan, 2005). Thus, while an anti-colonial perspective shares the aims of counter-hegemony, social justice, and emancipation, it has unique histories, structures, and concepts that distinguish it from critical theories (Kovach, 2009). Key to an anti-colonial perspective is the acknowledgement that colonialism is a contemporary reality, not a thing of the past (Endres, 2009). Further, this perspective requires awareness that Indigenous people have always resisted colonization (Shahjahan, 2005). Anti-colonial approaches seek to emulate this spirit of resistance by articulating spaces of epistemological pluralism, particularly *Indigenous ways of knowing*, critiquing and addressing colonial systems of oppression, *remembering* a legacy of colonialism, and honouring and respecting Indigenous self-determination (Castellano, 2000; Smith, 1999). Anti-colonial research is a deeply politicized process that critiques, challenges, and employs Western knowledge (Smith, 1999). Consequently, it requires ongoing contestation of power, privilege, and normative ontologies and epistemologies (Brunanski, 2009).

The purpose of this article is to analyze central tensions inherent in collaborative

research from an anti-colonial stance based on our experience with mining-affected communities. By *collaborative research*, we mean a researcher-community partnership in which a project, from design to dissemination of results, develops through ongoing dialogue with communities about their priorities and their identified needs and objectives.

First, we review the political context that shapes the conduct of mining companies in general. Next, we discuss common health threats and challenges experienced by communities directly affected by mining operations. Finally, we reflect on our recent experiences conducting research with a mining-affected community.

Political Context

Over 75% of the world's transnational mining companies are based in Canada (Foreign Affairs and International Trade Canada, 2009). These companies have enjoyed increased rights through a pattern of liberalized trade and investor protection (Gordon & Webber, 2008; McCarthy, 2004). In some cases, lawyers and development agents sponsored by the Canadian government have been tied to the revision and reformulation of mining codes and laws in foreign countries (Gordon, 2010; Kuditchini, 2008). Under pressure from the World Bank and the International Monetary Fund, one half of the world's nations have changed their mining laws to make them more attractive to foreign investment (Gedicks, 2010; Munarriz, 2008). Such changes often involve corporate deregulation, removal of corporate taxes, and breaking down of trade restrictions with the promise of economic prosperity (Falk-Raphael, 2006; O'Connor & Montoya, 2010). Yet consistently low national royalties, frequent *maquila* (a Central American term for industrial operations in free trade zones), and reports of exacerbated poverty in mining towns call into question the economic benefits of the industry (Gordon & Webber, 2008;

Kuditshini, 2008). Transnational companies and allied government officials have sought to lower standards of safety and environmental protection, or “non-tariff barriers,” in drawing up trade agreements under the rhetoric of “competitive” corporate practices (Grossman, 2000). Documented health impacts of such policies include malnutrition, treatment inaccessibility, increased health disparities, increased exposure to contaminants, food insecurity, and a weakening of public health systems (Gilmore et al., 2004; Labonte, 2004; Mann, 2011; Schäfer Elinder, 2003). As noted by Skarstein (2007), trade agreements are premised on a financial determinism that excludes the social or environmental indicators necessary to sustain the well-being of diverse communities.

Indigenous movements often articulate a rejection of this business model of development. Such struggles are historically connected to and are in opposition to colonial constructions of Whiteness and superiority (Smith, 1999). Lawrence (2002) notes that colonialism must be understood as a “concerted process of invasion and land theft” shaped by racist state policies that normalize violence against Indigenous peoples (p. 26). For instance, the appropriation of northern Ontario, largely fuelled by mineral and mining exploration, was enabled by the Department of Indian Affairs, which often forcibly relocated Indigenous peoples viewed as a hindrance to the establishment of exploration activities (Lawrence, 2002). *Resource colonialism* targets the homelands of Indigenous communities worldwide because they contain untapped resources for industrial development. It requires the ignoring of land ownership and other distinct rights through the legal/political construction of Indigenous communities as “dependent domestics,” undermining Indigenous sovereignty and ownership (Endres, 2009; Gedicks, 2010).

Globally, colonial legacies of oppression continue to manifest in the everyday health experiences of Indigenous communities (Estrada, 2009) and thus are important to our understanding of the contemporary context of Indigenous communities affected by mining. Political persecution and violence (Fiddler & Peerla, 2009; O'Connor & Montoya, 2010; Vanderbroucke, 2008), lack of consultation with and respect for Indigenous leadership (Sherman, 2009; O'Neil, Elias & Yassi, 1998), and threats to socio-cultural-spiritual structures (Alfred, 2009), as well as land dispossession and forced displacement (Gonzales-Parra & Simon, 2008; Whiteman, 2009), indicate that colonial mechanisms are still central to the imposition of mining operations worldwide. Mining operations are often backed by the Western rhetoric of development in which the economic systems and ways of life of local communities are portrayed as primitive and backward (Alfred, 2009; Endres, 2009). There are many reports of silencing, marginalization, and inferiorization of community views of economic development that are based on sustainability, spirituality, survival, and environmental conservation (Shriver & Webb, 2009; Whiteman, 2009). These acts may involve appropriation or misrepresentation of Indigenous cultures, reification of corporations as agents of "development," construction of Indigenous peoples as helpless (Endres, 2009; Gedicks, 2010), and criminalization and intimidation of Indigenous leaders (Holden, Nadeau, & Jacobson, 2011).

Community Health Implications

Mining poses environmental and human health risks to communities worldwide. Risks relate to industrial contamination (Obori, Dodoo, Okai-Sam, & Essumang, 2006; Sherman, 2009; Thomas, Irving, Lyster, & Beaulieu, 2005), water depletion, lack of

corporate accountability (Grossman, 2000), and poor regulation. For some communities, mining may also have a direct negative impact on traditional/subsistence activities, such as hunting, fishing, and agriculture, thus threatening community food security (Pereira et al., 2009; Simpson, 2009; Tsuji et al., 2005). Mining operations can release high levels of heavy metals and toxins into the environment that endanger human health for decades (Colin, Villegas, & Abate, 2012; Rodrigues et al., 2012). Even at low levels, synergistic/chronic exposure to these pollutants can introduce health harms that are not yet fully understood (Fowler, Whittaker, Lipsky, Wang, & Chen, 2004; Grandjean & Landrigan, 2006).

For many Indigenous communities affected by industrial megaprojects, psychological impacts are tied closely to economic, cultural, and social threats (Endres, 2009; Richmond & Ross, 2008). These close-knit relationships have been observed when considering the economic impact of mining operations on mining towns. The dependence of a community on mining operations makes it vulnerable to a volatile mining market with regular “boom and bust” cycles. This imposed dependence results in a community sense of vulnerability, uncertainty, and powerlessness that can manifest as anxiety, fear, or depression (Coumans, 2009). Further, the presence of mining operations can trigger psychological suffering expressed as grief, loss, fear, social division, increased alcohol abuse, and violence against women (Coumans, 2009; Gibson & Klinck, 2009; Munarriz, 2008). These mental health challenges, including substance abuse, have also been observed among mining workers in northern communities in Canada as a result of this same uncertainty as well as high-stress work demands (Gibson & Klinck, 2009).

Adding to these stressors are the militarization of Indigenous territory and the

violent displacement of Indigenous peoples through mining concessions (Renfrew, 2011; Szablowski, 2002). Even if companies have relocation programs in place, residents often suffer from a loss of homes, productive lands, social supports, and self-determination, as well as a sense of powerlessness, alcoholism, gendered vulnerability, and a disruption of their spiritual practices (Ahmad & Lahir Dutt, 2006; Gonzales-Parra & Simon, 2008; Szablowski, 2002). This process, coined the “resettlement effect,” is marked by a loss of social sustainability, or *new poverty* (Downing, 2002).

Whether mining can be conducted in a way that introduces little threat to the environmental health and well-being of residents is a matter of debate. Strategies identified for responsible corporate mining include recognizing land title, increasing job opportunities, timely environmental impact assessments, and proper/respectful application of traditional knowledge (Gibson & Klinck, 2009; Paci & Villebrun, 2005). Yet minimal environmental-social-corporate regulation, a global liberalized market that incentivizes a lowering of public health and safety standards, and limited state responsibility to communities may overshadow any community benefit (Howlett, Seini, McCallum, & Osborne, 2011; Kuditshini, 2008; Larmer, 2005).

Research Procedures

The aim of this research was to examine (1) the possible systemic impact of mining operations on the health of Indigenous communities, and (2) how resistance by communities is a resource for health promotion. In this research context, we understood resistance as an inherent or intuitive counterpoint to oppression (Sandoval, 2000; Shaw, 2001). The survival of Indigenous communities, in the face of systematic mechanisms devised for their extermination, is a testament to their diverse strengths and their tactics

of resistance (Castellano, 2000). Viewed through an anti-colonial lens, resistance is enacted via reclamation of one's relationship to the land (Alfred, 2009), protection of community sovereignty (Sherman, 2009), anti-racist stances, demilitarization (Munarriz, 2008), and survival (Chrisjohn et al., 2002; Lawrence, 2002).

This research, conducted with Indigenous community members in San Miguel Ixtahuacán, San Marcos, Guatemala, constituted the first phase of a larger study. That study examined how global forces shape the experiences of unique Indigenous mining communities through conversations with Indigenous peoples within the nation-state borders of Canada as well as Guatemala. We wished to incorporate an analysis of transnational actors and determinants that operate across borders to shape the health of mining-affected communities.

The anti-colonial narrative study was developed through a 2-year process of dialogue and engagement with community leaders and well-established community groups working in the region. A narrative methodology facilitated the telling of community members' stories and was aimed at privileging marginalized narratives and their sociopolitical contexts (Finley, 2008; Kovach, 2009) and at co-constructing a space for creative agency, anti-colonial revisions, and Indigenous ways of knowing (Bishop, 1996; Brunanski, 2009; Castellano, 2000; Chadwick, 1997). We were also guided by principles of participatory action research such as reciprocity, relevance, addressing power and privilege, and working towards community ownership (Castleden, Garvin, & Huu-ay-aht First Nation, 2008; Freire, 1999).

With the participation of members of FREDEMI (Coalition for the Defence of San Miguel Ixtahuacán), local Catholic parish leaders and associations, and the

Association for Holistic (Integral) Development in San Miguel Ixtahuacán, we were able to recruit 54 diverse participants. Included were men and women between the ages of 18 and 68 who collectively represented 14 villages within the municipality of San Miguel Ixtahuacán. During her 4-month stay, the first author, with the help of community leaders, visited each village three to five times. During the first visit, the study was introduced and its purpose described and any questions that community members had were addressed. While check-ins and soliciting of consent were ongoing, subsequent visits were more focused on health experiences and well-being, with groups of four to six individuals participating in each 60-to-90-minute interview. During each visit, the first author would report back on key issues and narrative themes that she had taken away from the previous interview in order for participants to challenge, elaborate on, or revise her accounts. This was a purposeful strategy designed to include community leaders in the first phases of analysis. The discussions continued following data collection, in formal meetings and telephone consultations.

Navigating Tensions: Reflecting on the Research Process

Here, we examine three central tensions encountered in the research that may be relevant for other scholars conducting research with anti-colonial intentions: (1) community agency and community victimhood, (2) common ground and distinct identities, and (3) commitment to outcomes and limitations. The pronoun “I” will be used — referring to the first author — as much of the discussion is based on her personal experiences and reflections.

Community Agency and Community Victimhood

Nurse researchers have stressed the need to capitalize on the initiatives and strengths of

communities in order to work towards health objectives that are relevant and synergistic (Lind & Smith, 2011). Yet researchers have consistently observed that community health experiences are rooted in material and sociopolitical realities that are shaped by oppressive and systemic forces of inequity (Anderson et al., 2009; Gracey & King, 2009). Often, these perspectives have been constructed as distinct and dichotomous, obfuscating either the strengths of residents or the political inequities experienced by a community. For instance, collaborating residents stressed the need to illustrate both the impact of mining on community health and the social, political, and economic factors that enabled the company to impose its operations on the region. On the other hand, residents discussed agricultural projects and cultural and educational programs they were organizing to address the key health priorities of the community, explaining that support would be needed to ensure their success. One resident engaged in mining resistance said, “It can’t be mining, mining, mining all the time; we also have to be thinking about . . . the future, alternatives.”

These different perspectives were evident from the initial phases of the research. In one village meeting held to describe the project to a group of women, the women expressed frustration and concern that the proposed research would just be “another outsiders’ project.” The women explained that visitors often gathered information to develop media for a North American/Western European audience but in their view these projects had done little to benefit them or their community. They were reluctant to continue to volunteer information, as they felt betrayed in having shared personal and intimate stories with these outsiders.

While the problem appeared to be partly related to a lack of communication or

transparency about the goal of a given project, from my perspective it also related to contradictory constructions of agency and victimhood. From watching a variety of media cover community members' experiences, I interpreted many of the documentarians or authors as purposefully and effectively shedding light on the "realities" of their situation. Yet the narrated experience of community members had been distanced from the community members themselves, as it stressed their victimization and subsequent reaction to the event. This rhetorical strategy, which placed an emphasis on women as symbols of victimization — in this case, gendered victimization — was intended to provide insights into particular injustices. Yet these accounts did not convey a true sense of the formal organization and planning in which the women were continuously engaged and did not incorporate the women's long-term visions. These omissions raise important questions. How do we balance the telling of an unjust experience without betraying the strength of participants?² And if victimhood is uniquely gendered and/or racialized, among other social intersections, how do we walk the line between reification of helplessness/inferiorization and acknowledgement of oppressive realities? For researchers seeking to address these tensions, the concern relates not only to silencing agency and subjectivity, but also, at the other extreme, romanticizing communities' experiences in the process of showcasing strengths and resilience (Bathum, 2007).

When some residents learned about the present research project, they stressed the urgency of their situation and the need for outsiders to draw attention to their suffering

² We do not wish to convey the notion that agency and victimhood are the only possibilities here; on the contrary, we wish to illustrate their binary constructions, which researchers undertaking this type of work must address.

and the threats to their health. Receptivity to the research was often linked to the hope that I would bring a unique expertise and understanding to an issue that some community members, particularly those with little formal education, felt they were lacking. Being viewed as an authority was a challenge for me, because I wished to highlight the unique perspectives and knowledge of residents. If participants considered me the expert, there was a risk that their knowledge and experience would be devalued. On the other hand, many community members had experienced a multitude of health threats, including political persecution, gendered violence, and social exclusion, concurrent with the opening of the mine. Often, these individuals had a profound sense of obligation to be strong spokespersons for the resistance movement, while also facing threats to their own well-being and even their lives. In these cases, acknowledging victimhood became the focus as the interview became a relational process of sharing, *being believed*, and being supported. These frontline leaders clearly understood the political power inherent in claiming victimhood, and thus easily deconstructed the dichotomy of victimhood and agency.

Throughout my visits, I spoke with participants about the aims and intended audiences of the research. In communities where residents were aware of the limitations and potential of receiving international attention, talking openly about this possibility helped to ensure that the data collection and dissemination processes were not only acceptable to residents but also consistent with the long-term goals of the community. The conversations developed organically as participants grew confident that they understood how the data were to be used. This was apparent when residents would stress a particular event or issue, reminding me of the importance of including it in any report,

or pointing out omitted themes when I would paraphrase or summarize earlier conversations. Interviews also served as an opportunity to “set things right.” Participants reported that the mining company would often take credit, in its public relations campaigns, for work it had not been responsible for or would carry out a superficial initiative to boost its image without making a meaningful commitment to the community. Residents would exclaim, “Lies! That’s not how we live” or “That happens, but not because of the mine — we do that ourselves.”

As noted by Swadener and Mutua (2008), one of the aims of anti-colonial research is to interrogate both the process and the outcome of the research in order to challenge hegemonic power relations inherent in research environments. Considering intended audiences, the long-term vision of community members, the emotional needs of participants, and transparency in the research process can shape how individuals in mining-affected communities negotiate agency and victimhood. Equally important to this process are positions of privilege, the role of community advocates, and corporate misrepresentations. Leaving room in group conversations for iterative meaning-making and purposeful planning with respect to intended audiences can facilitate an awareness and a cooperative approach in addressing these tensions.

Common Ground and Distinct Identities

The building of long-term, authentic relationships is at the core of community-based research (Estey, Kmetz, & Reading, 2008). Achieving this ideal involves constant scrutiny and questioning of the researcher’s privilege and social position, which can shape the research process. The researcher must also genuinely engage with individuals’ realities, moving past a superficial curiosity to explore the reciprocal/personal in finding

common ground. Yet identifying with a community's struggle can be problematic if it results in the appropriation or erasure of differences and inequity. On the other hand, placing an emphasis solely on privilege and difference can lead to missionary posturing whereby the researcher fails to grasp the interdependence of human beings and takes on the role of saviour or educator. The practice of research demands a joining together across differences towards "transformative solidarities," always aware of the constant risk of privileging certain perspectives while marginalizing others (Canella & Manuelito, 2008).

I sought to avoid the trappings of these two positions, a stance that challenged me to constantly revisit my own privileges, personal history, and identity. Throughout this reflective process, I found Noy's (2008) discussion of "tourist privilege" to be helpful. Tourist privilege refers to social advantages such as fluency in globally dominant languages, citizenship, money, and education, all of which facilitate access and mobility. I felt that these forms of privilege — my fluency in both Spanish and English, enrolment in a North American university, Canadian citizenship, and access to financial resources — had provided me with the ability to carry out this research, and indeed to initiate the project. More difficult to analyze was how these privileges informed my personal history as a racialized Mestiza woman and Guatemalan refugee.

During my time in the community I participated in some community events. One of these was a workshop on historical memory that was also attended by some of the research participants. The workshops sought to ensure nationwide awareness of the 36-year genocide in Guatemala's recent past. After one of the sessions I was approached by a participant. She had been particularly moved by a video account of a Q'uje Mayan

woman who had fled to Mexico during the years of state violence. The participant believed that this woman resembled me. Knowing that I was Guatemalan-born, she asked about my own history. I explained that my family had left the country after the state-ordered assassination of two of my uncles and death threats against my father, and that I was indeed of Q'uje (and Kachiquel) descent. As a refugee raised in Canada — my identity constantly regulated/challenged — I was moved by the compassion shown by this woman, who felt connected to me and insisted that I should move back to Guatemala to “be in your home where you belong.” I shared my history with many participants; it seemed to be an important step towards mutual understanding and a sense of common aims and struggles.

At other times I listened as community members told one another that I was of Q'uje ancestry. I interpreted this re-telling as an expression of camaraderie and trust. Yet it was difficult for me to accept this identity, as I felt that my personal background was not in keeping with what a “Q'uje background” — the Q'uje were the most targeted Indigenous group in Guatemala during the genocide — seemed to signify for residents. My family had been targeted not because of their indigeneity per se but rather because of their participation in the progressive politics and community organizing that are viewed as a threat in any totalitarian regime. As is the case in most colonial states, my ancestors had been discouraged from learning their language and passing on their customs to their children. My family could offer little more than a sense of pride in our heritage. I wanted to reject a colonial and linear interpretation of Indigeneity in which time ensures erasure or extinction (Tuhiwai-Smith, 1999), yet my access to Western power made it difficult for me to feel secure in embracing an Indigenous identity. Other

Mestiza authors have also documented contradictory identities and the implications for community research (Amado, 2012).

Some residents thought of me as solely Canadian. Often, thinking strategically, they were interested in how my position could bring about policy change or raise awareness in Canadian society about injustices inflicted upon their community. While this was a more comfortable identity for me, because it ensured acknowledgement of my position of privilege, it also implied the construction of “benevolent foreigner.” Seeing me in this light, some community members were inclined to thank me for my “help,” apparently construing my research project as a donation or a social investment. Other Western academics have noted that perceptions of their research are largely shaped by the political and economic contexts of inequity; if the research process is left unchecked, the research project runs the risk of becoming paternalistic (Batham, 2007; Moffat, 2006). I was mindful of ways in which my research could reify and reinforce hegemonic power relations. Consequently, I hoped that the research space would encourage a discussion of contexts/incidents of inequity/unfairness, the interdependent nature of the injustice(s), and the need for global accountability. Other nurse scholars have recommended dialogue as a strategy for developing collective consciousness about contextual inequities, an understanding of how they are relationally experienced, and a moral impetus for action (Anderson et al., 2009; Peter, 2011).

In group discussions I often reflected on my social position and privileges for the sake of transparency and reciprocity. For instance, if participants spoke of family members being forced to work in plantations abroad, their constant worry about deportation, and the dangers involved in crossing borders, I would disclose the ease with

which I had entered their community. We would talk about the double standard whereby Canadian companies and workers could enter their community and stay as long as they liked while even visiting relatives in Canada or the United States was close to impossible for them. For me, it was important that community members know the specifics of my situation so that a sense of commonality or camaraderie would not camouflage the privilege in which my research project was situated. Awareness of one's multiple and intersecting identities, particularly as they change relative to space and time, is a way to maintain a personal sense of authenticity while addressing the context and privilege in which the research is being carried out (Hulko, 2009). Discussing universal needs and rights threatened by mining operations in relation to our different backgrounds and experiences allowed us to examine our distinct positions as well as our overlapping struggles.

Commitment to Outcomes and Awareness of Limitations

During conversations with active and potential participants, many were focused on how the research could be used and how it could be of benefit to the community. This outlook should be at the core of all community-based research, particularly research with Indigenous and racialized communities where health and social science research have a long history of exploitative and discriminatory practices (Tuhiwai-Smith, 1999). Further, Indigenous communities often report being “over-researched” yet underserved and overlooked, indicating that much research has failed to address key concerns or priorities of community members (Sunseri, 2007).

When research is conducted with communities facing a broad array of health challenges with limited health services and infrastructure and widespread poverty, it will

inevitably fall short of comprehensively addressing the community's concerns. In mining-affected communities, if health concerns are connected to corporate misconduct, expectations for health research are high due to the extreme risks to health and human survival. This not only puts pressure on the research but may also introduce a coercive element into the research process. If community members believe that the research is needed, will they volunteer beyond their comfort level or with little attention to their own safety? If community members expect more of the research than it can deliver, has informed consent been truly obtained?

In any research process, practices of ongoing consent (Chih Hoong, 2005) and safety protocols (McCosker, Barnard, & Gerber, 2001) can be put in place to partially address these ethical issues. However, there is also an ideological tension that requires continuous engagement with research participants through adequate and ongoing communication as the research process evolves. As group interviews developed into rich and comprehensive stories, I tried to orient conversations towards an action focus. For instance, I would ask, "What would you like to see happen with all the information that has been collected?" If residents shared what they envisaged for dissemination, we would be able to work towards concrete first steps. I was also then able to be open about any practical limitations that I anticipated.

Other participants were more focused on the long-term goal and hence less interested in discussing incremental ways that the research could contribute. These participants articulated a bottom line: The mining company had to leave the community and cease its expansion activities. I had always anticipated that the project I was undertaking would be one of many, but I had not considered the extent to which the

research would have to be linked to ongoing advocacy work and community projects and initiatives. The realization that community priorities were much more oriented towards long-term goals served as a reminder that my research, too, would need to have a long-term vision in order to be truly congruent with community priorities.

Following data collection, I have worked with community members to map out a research dissemination strategy considered relevant and beneficial to the community. Over one morning and afternoon, approximately 100 community members met to consider potential projects. Through a voting process, they decided to carry out a community-led health tribunal — a participatory and public forum to formally address and legitimize community health concerns (www.healthtribunal.org). Inspired by initiatives such as the Water Rights Tribunals in Mexico (Weaver, 2011), this event brought together scientists, journalists, activists, and community leaders. With a focus on community testimonials, an international jury considered (1) what impact Goldcorp, the mining company, has on the region; and (2) whether Goldcorp has the social license to operate in the region. Momentum around this event exceeded expectations, as communities throughout MesoAmerica and Guatemala, where residents have expressed health concerns related to Goldcorp's mining operations, were able to participate. Residents are hopeful that the event will bring greater international awareness about the health threats wrought by Goldcorp and, further, provide a local source of support and capacity-building for community members. We are hopeful that this project, while not a simple process, will inform a collaborative and long-term struggle for global health and justice in Guatemala and beyond.

Conclusion

In anti-colonial research, the research environment is shaped by the same threats and challenges that face research participants. Mining operations introduce multiple threats and challenges for Indigenous communities throughout the world. Nurses must play a central role in both documenting and addressing this issue. Understanding community strengths and acts of resistance can help to both inform and articulate community priorities. Acknowledging privilege, finding common ground/shared histories, anticipating systemic barriers, coordinating with credible groups/institutions, and being cognizant of the tension between documenting oppression and community agency are important steps in building meaningful community-research relationships. Researchers should be mindful that there can be no short-term or easy resolution of systemic global injustices. Investigators must promote a transparent dialogue on the limitations, tensions, and potential of their study. Most importantly, researchers must remain present and committed to working with communities to achieve their long-term goals.

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CHAPTER 3

ANTI-COLONIAL PEDAGOGY AND PRAXIS: UNRAVELING DILEMMAS AND DICHOTOMIES¹

Critical, anti-colonial and participatory research scholars often aim to build empowering spaces and to contribute to emancipatory movements (Castleden, Garvin & Huu-ay-aht First Nation, 2008). For scholars who embrace these aims, project outcomes may be evaluated based on their relevance to communities, the development of meaningful relationships and the ability to effect change (Nicholls, 2009). While methodological frameworks aligned with these aims exist, academic norms and institutionalized hegemonic knowledge systems may contradict or inadvertently interfere with these intentions. Within nursing, various emancipatory approaches, including critical and feminist research methodologies, have gained growing acceptance in recent years. However, graduate nursing education continues to be heavily grounded in post-positivist, and interpretive paradigms. More generally, institutionalized knowledge is often based on Eurocentric readings of the world (Tuhiwai-Smith, 1999). The net result is that novice nursing scholars committed to Indigenous forms of knowledge generation are left with little guidance.

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The essence of critical and anti-colonial pedagogy requires that we contest, interrogate, and challenge knowledge claims and other normative structures and identities, a process that inevitably leads to some degree of discomfort, dissonance and resistance. As cultural and social contexts shift, inequities and injustices may manifest in less familiar ways. Thus, our aim in this chapter is to reflect on the value of an anti-colonial research approach in promoting findings shaped by Indigenous knowledge systems. And further, to consider the structural and contextual barriers that can limit these research intentions. Below, we will first discuss Indigenous knowledges in relation to hegemonic knowledge claims, and secondly, we will reflect on our experiences working with participants to incorporate local Indigenous knowledges into the research process. By sharing the lessons we have learned, we hope to promote further dialogue among critical and anti-colonial scholars focused on building research reciprocity, relevance, and genuine partnerships with Indigenous communities.

KNOWLEDGE CLAIMS AND INDIGENOUS KNOWLEDGES

A shared assumption of critical and anti-colonial research methodologies is that knowledge claims are always tentative, political and contested (Kovach, 2009; Perron, Rudge, Blais, & Holmes, 2010). From an anti-colonial perspective, the construction of neutral and/or "common-sense" knowledge is often a colonial mechanism for domination (Lawrence, 2002). These knowledge claims may operate through the erasure of historical contexts that enable the portrayal of the colonizer as the natural inheritor of Indigenous peoples' land (Tuhiwai-Smith, 1999). Through government policies, political rhetoric and language, Indigenous peoples may be portrayed as wards of the state; beneficiaries of

settlers' goodwill, while negating the inherent sovereignty of Indigenous nations and their rights to the land (Endres, 2009; Sherman, 2009). By developing culturally inappropriate programs and services that inadequately address the unique challenges and priorities of Indigenous peoples, policy-makers and health professionals may articulate a systemic denial of the cultural, physical, and emotional genocide of generations of Indigenous peoples (Chrisjohn et. al 2002; Haig-Brown, 2007). Thus, through a variety of ways, colonial claims to knowledge continue to impact the everyday realities of Indigenous peoples.

An anti-colonial lens emphasizes the ongoing resistance of Indigenous peoples to these hegemonic models of knowledge and champions epistemological pluralism as a means to counter colonial injustices (Mander & Tauli-Corpuz, 2006). Indigenous knowledges are typically defined as locally and experientially shaped forms of reason that guide and maintain Indigenous societies (Steinberg & Kincheloe, 2008). According to Castellano, Indigenous knowledges encompass a diversity of ways of knowing including intuition, observations and emotions (2000). Often described as fluid and dynamic, these epistemologies may include circular, interconnected and/or spiritual pathways of understanding (Bishop, 2005). Thus, they have the potential to interrupt hierarchical, fragmented or static readings of truth and reality (Shiva, 2008).

Western institutions such as universities have been recognized both as sites of Eurocentric indoctrination and as spaces for alternative imaginings. In these settings, Indigenous knowledges are often marginalized, devalued, considered a threat to the existing system or viewed as a "commodity to be exploited" (Kincheloe & Steinberg, 2008, p. 134). Alternatively, a growing cohort (Bishop, 2005; Kincheloe & Steinberg,

2008) of scholars has argued for the importance of Indigenous knowledges as a necessary counterpoint to a Western monopoly of knowledge. In essence, the standpoint of colonized peoples, albeit with diverse histories and identities, can be an invaluable resource to transform an unjust world. As a doctoral candidate (Caxaj) and research supervisor (Berman), we will share our reflections on learning through community partnerships at the intersection of academic expectations, colonial relations and systemic inequities. Highlighting themes of holism, development, and research practice, we will discuss how local Indigenous knowledge has informed our research process.

HOLISM: INTERCONNECTED READINGS OF THE WORLD

In our research, we sought to study the impact of Canadian mining on Indigenous communities, focusing our attention on Maya Mam people of San Miguel Ixtahuacán in Guatemala. Using an anti-colonial narrative research approach, we employed a story-telling methodology compatible with assumptions of the ongoing existence of colonialism and Indigenous resistance with the aims to promote epistemological pluralism and Indigenous self-determination (Caxaj, Berman, Varcoe, Ray & Restoule, 2012). Yet, as researchers situated in a Canadian university, our ideas and assumptions were shaped by Western notions about knowledge – what it is, what it is not, and how it is generated. Throughout the four months we spent in the community, conversations with residents challenged and deconstructed Eurocentric dichotomies such as the secular-spiritual, technical-traditional and the technological-sustainable. As a result, we felt a degree of dissonance throughout analysis, a fear of fragmenting and hierarchizing participants' stories that felt indivisible and complete. For instance, in conversation with participants, we were often asked to consider the indivisibility, or, *holism* of community

experiences. In the words of one participant:

“The earth really is a mother. So there is a very profound relationship there and it’s not so easy to disconnect. It is very difficult. So now with the mine I see it like this as well, like a cancer. They [the company] bought a little piece [of land] but then those who are beside [them] they lost all hope. In the end, those people there also had to sell and that is how they have moved along. They come with another neighbour, now that other person then also loses hope as a result of being neighbours with this person [person who sold the land]. In the end, those who remained had to sell. That is how they have progressed . . .”

Indigenous ontologies often emphasize the interdependence of living beings and the importance of harmony for survival and wellbeing (DeLisle, 2004). Similar to other Indigenous nations, the sacredness of the natural environment and the guiding principle of *mother earth* as a nurturer and giver of life (Gedicks, 2010; LaDuke, 2005), were central to these interpretations.

If an individual understands particular incidences as part of a larger relational whole, then this knowledge will inform how one understands wellbeing and health. In describing how the presence of local mining operations had contributed to increased alcoholism, binge drinking and violence against women, study participant Raquel related particular experiences to a collective sense of reality:

It’s a huge mess then . . . the violence, the disintegration, the discrimination, in the end, it’s everything because community life is a whole. And with one little thing, there, like a mesh, there the whole thing falls apart

Many qualitative research methodologies with their emphasis on personal consciousness

or *being* are often premised on the taken-for-granted assumption of the individual as the primary unit of analysis (Brunanski, 2009; Tilley, 1998). These approaches and the premises upon which they are based pose a challenge to researchers interested in understanding collective and relational readings of the world. To atomize an experience may be a form of institutionalized *untelling* as it reifies a Western hierarchy of reality construction: individualism. And, if a participant articulates their experience within a larger collective story, yet it is removed from this grand narrative, can the researcher still claim to work in *partnership with* community?

Thus, we were conscious of the need to develop a space that encourages the elicitation of collective storytelling and collective accounts of experiences, while also avoiding the pitfalls of cultural relativism, essentialism or romanticization. In all villages, participants preferred to participate in group interviews. In a few cases, participants also accepted our offer of one-on-one interviews in order to share their particular experiences in-depth. The opportunity to share stories enables individuals to gain a sense of support, solidarity, and camaraderie as they recognize that they may face common threats and challenges (Webber-Pillwax, 2004). Further, the collectivization of personal experiences provides opportunities for empowerment and can help communities mobilize towards resistance. As participants often did not restrict their storytelling to their particular neighborhood, interviews in other villages provided an opportunity to further enrich commonly known community stories and to exchange ideas and opinions expressed in other interviews. In this way, a community account, strengthened and enhanced by individual and familial particulars, emerged. In some cases, issues that had not been discussed in all villages became moments of realization for other villages. Sometimes,

these issues, when raised, enriched the larger narrative by invoking stories of exception, difference or distinctiveness. For instance, women might explain their increased economic precariousness in comparison to men in their village, or residents farther from the mine might discuss environmental contamination, or fear for “what is to come” by reflecting on the experiences of residents living downstream from the mine.

According to Brunanski (2009), ecological validity is the “degree to which the research is contextualized within a dynamic, holistic and interconnected Aboriginal worldview” (p. 57). Further, it serves as a criterion to evaluate the level to which culture and socio-historical context are considered throughout the research process. We strived for ecological validity by encouraging cultural positioning, reflections on historical and political events, and building spaces for diversity and collectivism. For instance, when we discussed the displacement of neighbors from their ancestral land by the mine, we asked participants how this experience was similar to, or dissimilar from, the 30-year genocide that targeted Indigenous populations in Guatemala ([CEH] Guatemalan Commission for Historical Clarification, 1999). Or, if participants discussed concerns about contamination or water depletion, we asked, “how does this relate to your culture/your spirituality?” These issues often came up organically. We continued this process throughout analysis by sharing talking points from previous interviews and asking whether participants saw them relating to a larger pattern or context and if so, to explain more fully. These ongoing conversations informed our reading/listening of interviews through a community-informed-intersectional lens – encompassing the spiritual, cultural, Indigenous, rural, as well as race, gender, poverty, global inequity and immediate contexts. Through this dialogue, we worked to have community knowledge both inform the analysis and our

very framework for analysis. This yielded a fair amount of participant engagement and much richer and more comprehensive findings.

RETHINKING DEVELOPMENT: A QUESTION OF POSITION AND DEFINITION

Indigenous knowledges offer a necessary form of questioning to dominant knowledge systems enabling a logical uncertainty to hegemonic, normative and/or passive readings of the world. Dussel for instance, writes that the knowledge of colonized peoples provides a profound critique and a basis for alternative strategies to the normalization and neutralization of unjust economic models (2001). DeLisle (2005) asserts that for some Indigenous communities, abundance may be more saliently measured in terms of biodiversity and environmental health as opposed to monetary wealth exclusively. Further, for some Indigenous communities the idea of all things having a measurable monetary value may conflict with a cosmivision (systematic view of the universe) that understands the land, earth, and wildlife as sacred entities that can belong to no one (LaDuke, 2005; Munarriz, 2008). For this reason, scholars have described global conditions of industrial expansion and consequent Indigenous opposition, as ‘paradigm wars’ (Mander & Tauli-Corpuz, 2006) as contemporary resource colonialism threatens material as well as cultural, intellectual and spiritual survival (Geddicks, 2010; Laduke, 2005).

In our time spent in the community, many community participants evaluated and deconstructed what was meant by *development* as commonly used in the mining company’s propaganda. State and mainstream media often depicted residents opposed to mining as being “against development.” In contrast, many residents would describe the

social, environmental and health problems that mining operations had brought to the region. “This is not development,” many declared. Luz, one of the community residents and participants of the research, contrasted community priorities of sustainable agriculture, cultural renewal, education and capacity building, with the alleged development that the mining company had offered:

The company’s development is solely infrastructure and their development, that is, buildings and buildings, and even higher buildings; that is the only thing, that’s the only thing the company sees, but that is not balanced. If there was a holistic form of development, education and other training programs would be stimulated . . . Until now, other than academic schooling, there was also another type of training whether it be baking, carpentry, whatever, always based on the situation, and not with the idea of studying what the system imposes, that is, of capitalism, of moving up and up . . . but more so, developing oneself for the good of the community . . . well that is the development that we need as a peoples . . . in contrast, there is the ideology that the mine imposes. . .

Like Luz, others described the company’s presence as an imposition on both their physical and cultural way of life and their own vision of development. Former workers for instance reported that when they raised concerns about co-workers/residents’ health or environmental damages, they were instructed to “align with the mine” and to “focus on themselves.” Many residents shared a vision of development that included protection of the natural environment, the common good, as well as cultural and spiritual continuity. Living in close proximity to mining operations they had witnessed threats to their economic systems, cultural and spiritual beliefs, traditions and relationship to the land.

Participants were acutely aware of the widespread poverty and limited access to education and agricultural support, yet they rejected the idea that mining could somehow resolve this issue. They saw it as a false solution based on exploitative and inaccurate depictions of their community, motivated solely by the company's expectations of financial gain.

As scholars working to build community-relevant initiatives in partnership with local residents, we must also navigate and confront the juncture of institutionalized assumptions and distinct or counter-hegemonic community priorities. We were aware that our academic positioning also threatened to impose values and/or misrepresent or exploit community challenges in much the same way the company had. In the words of one spiritual leader:

They [the company] do not collaborate, they only give handouts but it's a problem that the people do not see it as a handout. And that offends the spirituality, its like a crime, it's very grave because they take advantage, they exploit the goodness of the people who are grateful for what ever thing they are given. And with those things they manipulate the situation to say: look, the people support the mine. That is awful.

For a community experiencing widespread poverty such that it limits their access to opportunities and services, this very condition may introduce a coercive element to a community's willingness to engage in a research project. Further, within the context of poverty and minimal state support in developing health and social services, researchers and professionals may feel entitled to carry out "their" projects without being accountable to the community in question. As an institutionalized practice, our research, similar to

mining operations, can represent a Western articulation of privilege, development and unequal benefit.

To further illustrate, in order to enter the community, residents and neighbors reported that mining company employees had provided false information, threatened, intimidated and taken advantage of local landowners. In our own work, when presenting potential participants with *written* letters of information and consent forms, we were forced to see the symbolic similarities with our own consent process and the process that some residents had experienced when they had sold their land to the company. These encounters had been shaped by low literacy levels and limited formal education of many of the residents in the community. As Canadian citizens studying a Canadian mining company abroad, our privilege was foregrounded in these interactions. The written forms served as a reminder of this power imbalance; of our education, mobility across borders, and our presence as an institutional imposition. Further, many participants expressed their disappointment with previous projects that, in their view, had simply extracted their stories and left little of benefit for them.

We navigated this context with variable results. We sought to include different community-based organizations and community leaders in all phases of the research project. Before arrival in the community, through conversation with community leaders we shared a blueprint of a research proposal that we were able to further develop collaboratively once in the community. We solicited consent in an ongoing manner, through written and oral formats, at both the village level and the individual level, and we incorporated planning of how the research would be used in these first conversations. At both the village and municipality level, we reported our preliminary impressions of the

research findings in order to both include participants in the co-construction of research findings and collaboratively engage in a research dissemination plan that would resonate with them. Throughout the four months we spent in the community, we strived to be honest and authentic about our privilege, our intentions, and the limitations of our work. In this way, we aimed to avoid making exaggerated/false claims or benefiting from social disadvantages by which exploitative projects claim to bring ‘development.’ While systemic disadvantages could not be mediated, through ongoing consent processes and built-in spaces for collective decision-making in regards to the research process and priorities we strived to build an organic and trusting partnership. Ultimately, the hope is that researchers can build on and learn from community-initiated momentum. In the words of Elena:

We eat because of our own efforts, because we are working here with our neighbor; among ourselves, we help ourselves, it has nothing to do with the company [Goldcorp] . . . we have joined our neighbors to defend their rights, our rights, and the rights of our children . . .

RESEARCH PRACTICE: TRANSPARENCY, PARTNERSHIPS AND ACTION

Genuine community-academic research partnerships require not only a negotiation of different phases of research activities and techniques, but also a commitment to collaboratively re-imagine research priorities, purpose(s), and even what counts as research. Shifting towards this mode of research practice entails working towards identifying and transparently addressing different ways of seeing and building a space for genuine diversity. The hope is that this process can transition the research project towards action that is both meaningful and relevant to the community.

In striving for authenticity, we sought to be clear about our personal interest in this project, our intentions, our background, as well as our political assumptions and viewpoints. The field investigator, Caxaj, the sole member of the research team residing in the community described herself to participants as a doctoral candidate; Guatemalan-born daughter of refugees, *Mestiza* – of Quiche, Kachiquel Mayan, and European ancestry; English and Spanish speaker; and Canadian-educated registered nurse with Canadian citizenship. More important than listing these labels and identifiers were how these different identities were enacted in practice and how we collectively worked to build understanding of our differences and commonalities in these research spaces given our particular backgrounds and contexts. For Caxaj, this entailed an ongoing dialogue about privilege and oppression. This equally involved recognizing and acknowledging privileged differences such as ease of entry across borders in comparison to participants; as well as shared (yet different) oppression, for instance, as persons threatened and displaced by the Guatemalan state and allied corporate interests. In reflecting on this dynamic and relational practice, it has been difficult to observe the continued emphasis in critical research on the ritualistic listing of social positions, which can have the tendency to read more as a penance than a starting place for action and reflexive practice. More so, as people with mixed, contradictory or *Mestiza* backgrounds, this compartmentalization of one's identity can silence the subaltern perspectives imbedded within these listings of privilege. More nuanced thinking, and a sense of identity, as an action, strategy and mode of resistance is important to continued political work in research areas such as ours.

Throughout the research process, acknowledging our different vantage points and our different vision for the project was important. In one village, an interview focused on

health and the environment culminated in a final question directed at the investigator.

Serafina asked:

So now that you are here with us, what support can you give us?

A version of this question was asked fairly frequently, often early in the process. Implied in this question was an expectation that the research team should have a sense of what could be done in the service of the community even before data collection. As outside researchers, we had strived to keep our proposal flexible and open so that the process could be as participatory and as fluid as possible. On the other hand, community members wanted to know what we were all about, perhaps fearing that a vague attempt at a democratic process could result in either a waste of time or resources, or worse, a hidden agenda. As a result, early in the research process we began not only to reflect with participants as to how the research project could develop and evolve, but also, to consistently bring new proposals to participants. This two-pronged planning process allowed residents to get a sense of our commitment level, the level of confidence we had in our skills, and an assurance that their participation in this research project would not be in vain.

Following the data collection phase, approximately 100 people from the community, mostly participants, along with their friends and family, gathered to reach a consensus as to how we would develop research findings into a tangible resource for the community. By popular vote, the community decided to carry out The Peoples International Health Tribunal. Guiding this decision was a consensus in the need for more (1) local participation and community-level awareness building (2) outreach and education to the international community and (3) justice, more particularly, the need to

end Goldcorp's corporate impunity. Through community testimonies, participants had the rare opportunity to address an international audience via Internet streaming, engagement with an international group of experts participating as tribunal "judges," and live documentation. In this way, research findings were able to move beyond description and distress and become a platform for demands, a cry for justice, and a moral condemnation.

In Ricardo's words:

We just want to tell the company to leave us alone. [We want them] to go home, to go back to their country, that god may forgive them. But before that, they need to pay for the damages [i.e. to health, environment, community]. We need to continue this struggle, because the struggle is to defend life and defend our territories. They will be judged one day. At the end of time, they will be judged.

The tribunal also provided a venue for sharing and exchange among other communities in Guatemala affected by mining and other communities in Mesoamerica affected by Goldcorp operations. This provided a genuine forum for support, solidarity and movement building. Throughout the two days of testimonies, a rejuvenating sense of energy and support could be felt among the room of 600 attendees. To end the tribunal, the international panel of judges, a combination of scientists, physicians, academics and human rights specialists delivered the verdict, finding Goldcorp guilty of damaging, the health, quality of life, the environment and the right to self-determination of Indigenous and campesino communities in Mesoamerica. (Peoples International Health Tribunal, 2012).

FROM ACADEMIA TO ACTION AND BACK: BLURRING THE BOUNDARIES

While the tribunal represented a significant milestone in the conduct of this

research, and was considered a success from the perspective of community members and allied communities and organizations, important questions arise. Most germane to this discussion is the relevance and appropriateness of this type of activism in critical and anti-colonial scholarship. Throughout the past decade, doctoral nursing programs have accorded increasing attention to various emancipatory research approaches, including methodologies that include at least some form and degree of participation and action. Typically, the emphasis is on the establishment of honest and authentic community partnerships, and the challenges that are commonly encountered as a result of differences in power and privilege. To engage meaningfully in the field in a manner that can foster long-term social and political change requires time and resources, both of which are often in limited supply to doctoral students. How to engage in research-based activism within the context of a doctoral dissertation is a complex issue due to time constraints, financial constraints, inherent inequalities, and the question of data ownership, manuscript authorship, and so forth. In the case of this project, we were lucky to receive a grant from the Fund for Global Human Rights and Caxaj also had financial security, in part, by winning a three-year doctoral research award, the Canadian Vanier Graduate Scholarship. If one criterion for critical work is the capacity of the project to contribute to change however, can we really make claims to critical scholarship in the absence of social action and reciprocity?

Ultimately, we ask the question, does a project like the People's International Health Tribunal have a place as an academic requirement for a dissertation with emancipatory aims, for example? Is it demanded, in some sense, as evidence of the 'critical' or 'anti-colonial-ness' of one's work? Or is it made invisible, as an off-branch

of research or an academic form of volunteerism? The tribunal was carried out through community consensus, planning and collaboration, but most importantly, because it was identified as a community priority. In meeting academic expectations, particularly, within the constraints of a nursing dissertation, it is important to acknowledge that there is an aspect of one's research that may not seem relevant to community members. This requires us to problematize conventional ways of thinking of collaborative research in order to develop research that fosters a true spirit of reciprocity. For instance, manuscript authorship may not be as important to participants as having a report of health findings that can be used in legal cases or other forms of community planning. It is important that we continue to articulate what we mean by "effect change" such that our research remains true to the ideological underpinnings we espouse and does not fall short of our participants' expectations. There is also a need to consider how we sustain researchers' commitment to this long-term vision when this type of work is generally not valued in academic settings nor funded by major agencies and organizations that provide funding for nursing research. Further, in revisiting how we as critical, anticolonial or emancipatory scholars wish to define research itself we may enable the use of more diverse strategies to ensure research meaningfulness and relevance.

CONCLUSION AND IMPLICATIONS FOR NURSING SCHOLARSHIP

In partnerships with communities, academic researchers need to continue to develop new strategies to incorporate the unique vision and expertise of community participants. This must include collaborative efforts to incorporate 'big picture' research issues in the process by re-evaluating research priorities, research objectives, what/how knowledge is valued, and how to co-construct findings in an authentic and participatory

manner. In working with Indigenous communities affected by mega-projects or facing other environmental health challenges, issues of holism, development and research-practice-as-action may be important sites of contestation requiring ongoing iterations to ensure a meaningful and democratic process. Through our experience with a Mayan Mam Indigenous community in Guatemala, we have attempted to illustrate the structural inequities and contextual barriers that limit and shape investigator's emancipatory intentions. Further, we have shared our reflections and lessons learned in attempting to maintain a commitment to an anti-colonial nursing mandate.

Continuing to expand the criteria by which we evaluate critical research traditions and other politicized approaches to research may help us maintain a high level of commitment to action with the communities that we work with. An anti-colonial approach in particular, can provide a guiding framework for researchers working with Indigenous communities to incorporate the unique worldviews and knowledge systems of participants that can continue to strengthen and enrich nurses' relevance and responsiveness to diverse clients. It is important for us to continue these discussions with our students and colleagues not only to make visible these issues, but further, to develop a preparedness and sense of support for students engaging in this emotional and political work. Ultimately, we need to reflect on how to develop our networks, institutions, research spaces and mind-sets such that our research partnerships enable us to contribute to necessary social change, both for immediate and long-term impact.

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CHAPTER 4

PROMISES OF PEACE AND DEVELOPMENT:

MINING AND VIOLENCE IN GUATEMALA¹

For many Indigenous populations worldwide, health experiences are shaped by historical and contemporary legacies of colonialism and political violence. In Guatemala, where approximately 51% of the population is made up of diverse Indigenous peoples (Minority Rights Group International, 2008), a 36-year war (1960 – 1996) resulting in the genocide of Indigenous peoples ([CEH]Guatemalan Commission for Historical Clarification, 1999) has significant impact on current health realities. Of the 1 million displaced and 200,000 (CEH, 1999) massacred or disappeared persons, military state forces in alliance with US military and intelligence forces ([NSA] National Security Archive, 2013) perpetrated 93% of these violations (CEH, 1999). During the 1996 signing of the Peace Accords, Guatemalan government leaders committed to making significant changes to economic and social policy in order to address the root factors, such as poverty, Indigenous rights, gender equity and systemic racism, that triggered and perpetuated this violence (Tuyuc, 2012). Now in 2013, significant improvements remain to be seen. Further, the investigation of perpetrators and adequate restitutions to victims of the genocide and families of the disappeared has been stalled as a result of inadequate government support (Doyle, 2012). Amidst this context, further liberalization of trade and services, including poor environmental regulation, low tax royalties and the privatization of previously public services, the government has continued to appropriate Indigenous territory for large-scale industrial projects (Gordon, 2008). Of particular concern to Guatemalan

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citizens is the continued expansion of mining concessions, which pose serious threats to the environment, and consequently to food security, water access/quality and human toxicity ([COPAE] Comision Pastoral de Paz y Ecologia, 2009; Zarsky, Stanely, 2011). These operations are often carried out without community consent or adequate consultation, are associated with increased social conflict, gendered violence, and in recent cases, overt militarization (Holden, Nadeau & Jacobson, 2011; Imai, Mehranvar & Sander, 2007; Sharma & Rees, 2007). These issues are of key concern to nurses looking to address the social determinants of community health and in contributing to a global movement for health for all.

Our research focused on the influence that Vancouver-based Goldcorp's operations has had on the community health of Mam –Maya Indigenous residents of San Miguel Ixtahuacán, a municipality in the Western highlands of Guatemala in which 85% of Goldcorp's Marlin Mine is situated (Van de Sandt, 2009). With a population of 35,276 (Instituto Nacional de Estadística, 2010), this municipality is situated within the department (province) of San Marcos (Van de Sandt, 2009). Specifically, the study examined: (1) the impact of Goldcorp operations on community health and; (2) how the political context, including community resistance, has shaped these health experiences. Here, we discuss macro-level findings. Lastly, we will examine the structural elements of peace in relation to transnational mining in a "post-war Guatemala" and the role of nurses/health professionals in working for peace and justice.

Paradigmatic Influences

The study was shaped by critical scholarship and Indigenous epistemologies. Researchers within the critical paradigm analyze historical constructions and their impact on current

realities; deconstruct claims of objectivity that privilege hierarchical relations of power; and seek to examine research and knowledge construction as deeply politicized value-laden mechanisms. A critical nursing lens recognizes that determinants of health are not only physiological or behavioural, but also social and political. Thus, it prompts us to address privilege, relations of power and injustices. And further, to work towards community benefit and inclusivity (Denzin, Lincoln & Smith, 2008).

Diverse Indigenous epistemologies have been recognized for their intellectual and emancipatory value (Kovach, 2009; Smith, 1999; Shahjahan, 2005). These knowledge systems may include spirituality as a way of knowing, relational/ecological ways of thought and cognitive structures bounded in local environments, experiences and values (Kovach, 2009; Smith, 1999; Shahjahan, 2005). These localized knowledge systems are profoundly important to global society because collectively they encompass pluralistic viewpoints that enrich and enhance humanity's ability to thrive and live in harmony in diverse surroundings (Stephens, Porder, Nettleton & Willis, 2006). Indigenous knowledge systems also enable the assertion and reclamation of unique Indigenous histories and existence that have been traditionally negated by colonial processes (Alfred, 2001). Moreover, through dynamic and fluid iterations they chart potential and possibilities for Indigenous communities outside the realm of Western control, reason and domination (Endres, 2009; Lawrence, 2002). The knowledge(s) of the Mam Mayan residents of San Miguel Ixtahuacán were instrumental in shaping the research process and broader issues of representation and knowledge co-construction. An Indigenous-informed perspective was also important in examining historical legacies of colonialism and violence inclusive of the physical, cultural and spiritual dimensions of systemic genocide.

Theoretical Perspectives

Anti-colonial theory originates in the work of colonized scholars who have sought to understand and dismantle this lived oppression. Anti-colonial scholars have championed various approaches, among them, civil disobedience, spiritual resistance, cultural and identity reclamation, and dialectical resistance (Shahjahan, 2005). While shaped by different realities, a key aim of anti-colonial scholars has been to reclaim a national or collective sovereignty and maintain a cohesive unique identity – outside of the realm of a hegemonic sphere of domination (Alfred, 2001; Endres, 2009; Lawrence, 2002). These aims are grounded in material inequities, such as dispossession, cultural, physical and/or spiritual genocide, and top-down neoliberal economic practices (Lawrence, 2002; Munarriz, 2008). From an anti-colonial perspective, these inequities are maintained and perpetuated by a racist ideology of colonial thought. For instance, the construction of Indigenous peoples as helpless/passive wards of the state (Endres, 2009; Lawrence, 2002), as obstacles to development to be controlled (Munarriz, 2008), and as disposable, sub-human or threats to national unity (Corntassel & Holder, 2008) have been used as justification for colonial violence or domination. Colonial inequities are often inseparable from co-existing oppressive forces; this often necessitates an intersectional analysis towards decolonization (Denzin et. al, 2008). Ultimately, an anti-colonial approach seeks to examine colonial relations, acknowledging that colonialism is both a historical and contemporary form of oppression. From this lens, colonialism is a reductionist/hegemonic force in which pluralism and the epistemological diversity of Indigenous peoples pose a threat to this colonial world order. Pluralism in turn, is an important element for humanity's survival.

Review of the Literature

Here, we focused on two areas of relevance to our discussion: colonial mechanisms and environmental racism and the impact of mining on community wellbeing. We have focused on research from the year 2000 onwards. As such, we have excluded seminal work that has analyzed the impact of extractive industries on Indigenous populations in the global North, such as O'Neil, J. B., Elias, and Yassi, (1998) and Laduke (1999).

Colonial mechanisms and environmental racism

Recent research confirms that racialized communities are commonly targeted for industrial projects and waste sites. Extractive operations such as copper, gold and uranium mining for instance occur predominantly on Indigenous territory (MiningWatch Canada, 2003). Despite this disproportionate toxic burden, these communities typically receive the least economic benefit and have little say in halting or significantly altering how operations are carried out when there is cause for concern (Corntassel et. al, 2008).

The dynamics of colonial appropriation and racist ideology in conjunction with economic models of wealth accumulation have been referred to as *resource colonialism* (Gedicks, 2010). Resource colonialism requires ignoring land ownership and other distinct rights through the legal/political construction of Indigenous communities as dependent domestics (wards of the state). For instance, in Munarriz's (2008) and Gedicks' (2010) analyses of mining reforms in Colombia and Peru from the 1990s to present-day, states have restricted the parameter of land claims such that private ownership is valued over Indigenous peoples' rights to communal land. This threatens Indigenous peoples' sovereignty and their rights to choose their own forms of development (United Nations, 2008).

Others have noted the role that existing colonial discourses play in imposing mining operations and other industrial projects on Indigenous communities without adequate consent or consultation (Endres, 2009). Silencing and marginalization of Indigenous opposition to large-scale mining projects have been observed when distinct perspectives of economic development, such as those based on sustainability, a spiritual relationship to the land, survival and environmental conservation exist (Endres, 2009; Holden et. al, 2011). Others have linked local transnational mining impacts with cumulative and historical social costs of colonialism and discrimination (Imai et. al, 2007; Munarriz, 2008). Further, targeted violence, criminalization and assassinations of community leaders opposed to mining projects as well as militarized displacement in many regions of the world including Columbia (Gedicks, 2010), Peru (Munarriz, 2008), Guatemala, the Philippines (Holden et. al, 2011), and Indonesia (Ballard & Banks, 2003) are well documented. Violent conditions related to the presence of industrial extractive projects, often termed the ‘resource curse,’ are so prevalent that extractive resource wealth is more directly related to increases in military violence and social conflict than political/economic instability (Gordon & Webber, 2008)

Mining’s Impact on Community Wellbeing

Most mining health research is focused on environmental contaminants and the health of mining workers, particularly, occupational hazards as a result of nature of their work (Donoghue, 2004). Yet a growing body of literature has begun to analyze broader health/social impacts among mining communities, revealing that these health challenges are inextricable from broader socio-economic conditions. Shriver and Webb for instance, examined health experiences among the First Nations White Eagle community in the

United States, in close proximity to an oil-refining facility (2009). Through in-depth interviews with 19 Aboriginal residents between the ages of 19 to 68, they found that a high community-level prevalence of respiratory conditions and cancers had left residents feeling hopeless. Many expressed that the constant toll of environmental risks, as a result of air pollutants, had threatened community's social and cultural wellbeing. A sense of lack of support and "blaming the victim" in health care encounters exacerbated this sense of powerlessness, particularly by focusing on lifestyle behaviours, such as smoking, instead of considering environmental factors. A sense of powerlessness and deep uncertainty among mining-affected communities has been noted elsewhere (Coumans, 2009; Szablowski, 2002). Thus, corporate or state neglect, institutional marginalization and environmental risks all appear to threaten the agency and security of Indigenous communities affected by mining, impacting overall wellbeing.

Mining activities, from exploration to closure of operations can bring unique economic challenges to local communities. These include poor job security, an increase in rich/poor disparities among residents, and damage to traditional economic systems (agriculture, hunting) (Paci & Villeburn, 2005). Further, mining operations may establish a dependence on corporate interests for necessary community infrastructure and threaten local economic sovereignty and sustainability (Gravois-Lee, 1996; Simpson, 2009). Of particular concern, is the forced dependency that may be imposed on Indigenous communities as sustainable economies are replaced with short-term industrial projects with few long-term benefits for community members (Alfred, 2011; Imai et. al, 2007). Further, threats to the natural environment and consequent subsistence activities, may also threaten physical health by posing risks to community members' food security,

activity level, and risk of environmental toxicity (Gibson & Klinck, 2009).

Previous research indicates that economic uncertainty and vulnerability are tied to particular health challenges among mining-affected communities. In the case of the Appalachian coal mining community, occupational, socio-economic, and social infrastructure factors were tied to higher rates of specific illnesses (i.e. cancers, respiratory conditions) and suicide related morbidities (Gravois-Lee, 1996). Others have found that many residents in mining towns report high levels of depression, anxiety and general stress as a result of tenuous economic conditions, uncertainty and exclusionary forces. Mining also may trigger mental stress or anxiety, particularly among mining workers due to job strain and security as well as addictive and high-risk behaviours as a result of an increase in disposable income and as a coping mechanism for increased stress (Coumans, 2009; Gibson & Klinck, 2006). While it is generally accepted within health care literature that poverty is a powerful determinant of health, specific industrial processes such as mining that influence a community's financial status and subsequently, their health status, has received less attention. Financing institutions maintain that mining brings economic prosperity to local communities yet little evidence exists to substantiate this claim, with much research indicating the contrary (Pegg, 2006).

Literature Review Summary and Areas of Future Inquiry

Existing research indicates that mining companies often enter Indigenous territory without adequate consultation or consent processes (Endres, 2006; Imai et. al, 2007; Holden et. al, 2011). Recent studies point to both state and corporate discourses role in constructing Indigenous peoples as helpless or inferior people in need of 'modernization' or 'development' when establishing large-scale mining projects on Indigenous territory

(Endres, 2006; Lawrence, 2002; Munarriz, 2008). Commonly, researchers' report a lack of recognition of international laws, Indigenous sovereignty, and distinct priorities for development, Indigenous laws/knowledge, and traditional/subsistence economies (Imai et. al, 2006; Simpson, 2006). While legal, political and social science scholars have provided important analyses of how companies enter Indigenous peoples' homelands without the social license to operate (Holden et. al, 2011; Imai et. al, 2007; Munarriz, 2008) these analyses rarely examine how these processes are experienced at the community-level nor do they fully incorporate local voices into their analysis.

Even less research has looked at local realities, especially health experiences, once the mine is in operation in a region. Health studies are typically limited to the study of mining workers, or the exclusive analysis of physical symptoms experienced as a result of industrial contaminants. Mental health challenges are common among mining workers' and their spouses (Donoghue, 2004; Gibson & Klinck, 2009; Sharma & Rees, 2011) but there is a dearth of knowledge in terms of the threat this poses to the larger community. The few studies that have looked at the impact of mining on community wellbeing indicate that social and psychological vulnerability are closely tied to economic precariousness, uncertainty and drastic changes to socio-cultural structures and livelihoods (Coumans, 2006; Szablowski, 2002). Current research also indicates that physical conditions, seemingly related to mining operations are rarely treated or investigated by local health services further perpetuating community members' sense of uncertainty and powerlessness (Shriver & Webb, 2009). Violence, militarization and criminalization have also been associated with large-scale mining operations (Gordon & Webber, 2008; Holden et. al, 2011; Imai et. al, 2007) yet the focus has been the political

and legal implications of specific incidences with little research considering what health impact this will have on communities in the short and long-term. To our knowledge, our study is one of the first to look at the health impact of large-scale mining from a nursing perspective, and one of very few to be carried out with a specific health focus. More research by health scholars is needed to identify multi-faceted health challenges, develop collaborative preventative/therapeutic strategies given these challenges, and bring attention to the acute conditions faced by these communities.

Research Design

The study design was an anticolonial narrative approach informed by participatory action research principles. Storytelling can be a culturally responsive means to ensure that participants' multiple truths and control over the research project are respected and has great moral, healing and emancipatory potential (Finley, 2008; Smith, 1999). A politicized orientation to narrative positions the researcher to consider the very nature of knowledge production and to work towards disrupting this status quo by being vigilant of which stories, or perspectives/accounts are privileged and which are not given the attention that they are due (Finley, 2008; Kovach, 2009). Indigenous ways of knowing are often guided by experiential, interpretive and relational frameworks, thus, story-based methodologies can facilitate the centering of Indigenous knowledge into the research process (Kovach, 2009). Brunanski (2007) however, cautions that Western approaches to narrative have privileged Western ways of knowing, particularly, the individual as the unit of analysis, as well as linearity and chronology. We worked to be cognizant of the colonizing mechanisms inherent in Western science and to co-construct spaces for storied collectivity as well as the expression of diverse perspectives.

Participatory action research (PAR) principles emphasize collaboration and partnerships, addressing power differentials, trust-building and working towards maintaining community ownership (Castleden, Garvin & Huu-ay-aht, 2008). By enacting PAR principles we worked to maintain a necessary flexibility and a democratic framework to foster meaningful partnerships, generate relevant findings, and inspire useful and beneficial outcomes in partnership with Indigenous communities (Castleden et al, 2008). For instance, all aspects of the research design were treated as blueprints requiring community input. As such, many aspects of the research were significantly altered or refined by participants.

Research Procedures

With the guidance of community leaders, recruitment was conducted using a snowball sampling, respondent-driven approach in which we strove to make sampling a site of fluid, inter-subjective and emergent knowledge co-production (Noy, 2008). In total, we recruited 15 men and 41 women ranging from 18 to 68 years of age, including local health care workers, educators and spiritual leaders from 14 different villages and hamlets of varying distances from the mine. These regions were chosen based on their richness of experiences, their willingness to participate at a collective level, and our interest in capturing a broad array of perspectives. Consent was solicited at multiple levels and on an ongoing basis. First, a study proposal was sent to community leaders in order to gauge perceived interest, feasibility and relevance. Then, the project proposal was presented to residents of each village/hamlet of interest. If residents agreed to the study in principle, we then recruited volunteers, either by individuals stepping forward, or by village nomination. Individuals were then given written letters of information that were

also read aloud to solicit informed consent. Before each interview, individuals were reminded that they were under no obligation to participate or to have their voices audio-recorded.

Individual participants, ranging from 3 to 5 volunteers per village, were then asked to decide their preferred method(s) of data collection, among them, focus groups, one-on-one interviews, photovoice, or other arts-based approaches. In all villages, individuals decided to participate in group interviews and to also use cameras. Photovoice provides an opportunity for participants to set the agenda/priorities throughout data collection as photos serve as a ‘catalyst’ for discussion throughout the process (Castleden et.al, 2008). We visited each of the participating villages/hamlets 3-5 times, resulting in 2-3 group interviews of 70 – 90 minutes per village. We also conducted 5 one-on-one interviews upon individual requests. The last focus group interview in each village focused on the sharing of observations/experiences they wished to impart through the taking of photos. Participants were instructed to obtain written consent if taking pictures of local residents.

Our analysis was loosely guided by McCormack’s lenses of active listening, meaning-making, language, context and key moments (2000). This heuristic has been adopted for use with diverse Aboriginal groups (Brunanski, 2009). This framework guides the researcher to ground stories in their respective spaces of meaning and to overtly acknowledge issues of representation in the reconstruction of narratives. In order to involve participants in beginning analysis, we shared emerging village-level interpretations based on past interviews at subsequent meetings to engage in an iterative process for the identification of themes and storylines. These conversations served as an

important starting point for continued co-construction through narrative. This same process of iterative meaning-making was then continued through larger meetings, phone calls and community events. Over time, we developed stories foregrounding participants' own words, imbedded in written personal reflections and observations by the field researcher. *Storied stories* for each village were organized by *storylines*, short stories or chapters within a larger village narrative that emphasized a participant's *evaluation* of an experience. These storylines helped identify a collection of experiences, slowly shaping a larger community-level narrative analysis. Through participation in public spaces, such as the health tribunal (www.healthtribunal.org) stemming from the research, participants also continued to re-articulate stories shared throughout data collection through *testimonies*. This process also informed and enriched the analysis.

Findings

Findings revealed that community health experiences were inextricably shaped by contexts of oppression. Goldcorp introduced new threats but also worsened existing health vulnerabilities. Conditions of particular impact included *systemic intersections* of poverty, dispossession, genocide and gendered oppression. We use pseudonyms to protect the anonymity of participants.

Poverty and Dispossession

Throughout conversations, San Miguel Ixtahuacán residents expanded on the lived circumstances in which they experienced health challenges. Widespread *poverty* was often described as an “everyday struggle” limiting educational aspirations and consequently, employment opportunities. Even graver, were concerns about child malnutrition, food insecurity, and exploitative work conditions. Eugenia said:

It is very difficult because they [farmers] begin work [early in the morning] and don't end until 6 or 7 at night, it is an arduous task; our need worries us a lot. Recently I have also noticed that we no longer [can] harvest any maize, if we cultivate it and it just grows but it doesn't yield corn. We are going on three years but I don't know why it is like this. We use a lot of fertilizer but there is nothing and the fertilizer is very expensive. We are a family with *a lot of need* but there is nothing. We go to the coast and there they pay us 10 or 20 Q [a day], nothing more, we don't make anything. Before it seemed like it was getting better but since the mine came in . . .

Consistent with concerns raised by San Miguel residents, Bury's study in an Indigenous area of Cajamarca, Peru, found that transnational gold mining operations impacted the agricultural livelihood or 'natural capital resources' of the community (2004). In both cases, communities practice subsistence agriculture as well as migratory/coastal work. Access to land and water resources and threats to water quality, then, have a significant impact on their livelihood and wellbeing.

As large-scale mining projects extract non-renewable resources their economic contribution to a region is by definition temporary. Key to justifying large-scale mining operations in any region, then, is to demonstrate an economic benefit that surpasses any social or environmental impacts that communities might suffer (Zarsky & Staneley, 2008). In this sense, it can be argued that the poorer the community and the host country, the more the company may claim to bring an economic benefit that is seemingly otherwise unachievable. However, in-depth analysis of transnational mining practices often have found that claims of socio-economic progress, particularly in impoverished

nations, fall short of expectation, often resulting in further inequality and socio-economic insecurity (Pegg, 2006; Zarsky & Stanely, 2011). These promises of progress and subsequent disappointments were felt through residents' everyday experiences. Residents, and sometimes whole families, were forced to work as plantation workers in Southern Guatemala ("the coast") or as migrant labourers in North America. Throughout data collection, buses transporting residents to the coast crashed, resulting in fatal injuries and accidents. While incredibly saddening, residents viewed these incidents as fairly common. Participants however, were angered by the company's claims of wealth generation. Often in reference to these accidents and alleged mining company benefits, they would retort, "Where is the development?" If company claims of wealth and benefit were valid, how was it that the same cycle of poverty as always (evidenced by seasonal work) was unchanged for so many households? Lorena said:

"I don't know who is benefiting from the money but the villages and communities are dying. I have seen families who only eat once or twice a day, the kids stay hungry, where are the dad, the mom to go? That's why I think the benefit is for the transnationals that entered, it's for them, not for us."

There was general consensus that even if some residents were benefiting from mine operations, the majority of residents' economic situation had not improved, and in various ways had been further threatened. Other studies of mining towns have shown that benefits are typically not distributed evenly among communities/households, further exacerbating inequity (Coumans, 2009; Sharma & Rees, 2007).

In addition, Zarsky and Staneley's analysis of Goldcorp's Marline Mine indicated that social and environmental risks outweighed any economic benefits (2011). They

found that: (1) the company's contribution to national and local Guatemalan economies were insignificant in comparison to the project's income and profitability; (2) lack of adequate environmental monitoring/mediation will result in long-term threats to livelihood and well-being and; (3) little social investment in public services/long-term projects will hinder any potential long-term benefits. Thus, socio-environmental risks outweigh the mining projects' economic benefits. Notably, Zarsky and Stanley (2011) discussed the layered filters of benefit and impact, indicating, for instance, that the Guatemalan government's tax revenues often do not translate into local benefit for residents directly impacted by mining operations. Identifying differential benefit within national and regional zones is important when considering the impact of mining on Indigenous communities, who, as previously stated, typically face a disproportionate toxic burden (Holden et. al, 2007).

Dispossession and Genocide

For residents of San Miguel Ixtahuacán experiences of poverty, violence and precarity were similarly tied to both historical and present-day forces of dispossession. Of particular concern, was the threat of mining operations on the natural environment. Expressing frustration at recent crop failures, one participant remarked, "they [the company] are using the best water!" Some participants reported that people who had not gone to the coast for years were now returning to this line of work due to crop failures attributed to mining operations. As in the past, some residents went to Mexico or the United States, looking for more permanent work to support their families. These residents often experienced discrimination and mistreatment as undocumented workers. Rosío, among others, reflected on how current experiences of displacement and appropriation by

Goldcorp continued a historical legacy of colonization:

They [Goldcorp] entered the way the Spaniards entered 500 years ago to extract the riches of the Indigenous peoples, because they say that the coastal land belonged to the Indigenous, that's where they lived . . . the Spaniards came to take away the land and the riches and made themselves owners of the land, so that the campesino people would return to them as hired hands. And here where we are, since they saw that it was a mountainous area, like there wasn't much life . . . they [the Spaniards] stayed owners of the coasts that are farther away, because they saw that there was coffee, banana, mango, papaya, everything and they wanted to own who knows how many acres of land so then they didn't care that the Indigenous would have to live in the mountains . . . but what we would like is that they [the company] return to their homes [or] they can be migrants but that they not discriminate against the people. . .

For local residents, economies were entrenched in land-based activities and, as such, environmental impacts were not easily separated from economic impacts. Land-based economies are commonplace among many Indigenous communities worldwide making them more susceptible to industrial impacts on the environment. Further, land is often a site of cultural and spiritual meaning, thus, threats to Indigenous territory can impact the continuity of distinct articulations of identity and existence (Holden et. al, 2007; Alfred, 2001; Simpson, 2009). In response, some scholars have framed the threat of transnational mining corporations on economic and social structures of Indigenous peoples as a process of “accumulation by dispossession” (Harvey, 2006). This theoretical orientation is based on Marx's discussion of ‘primitive accumulation’ – a historical

process in which rural agricultural workers were displaced to urban settings through the expansion of capitalist modes of production (Gordon & Webber, 2008). Harvey argues however, that this capitalist process is still in effect – particularly threatening Indigenous populations who may practice *modes of production* that are incompatible with an ever-expanding capitalist system (2006). Employing an ‘accumulation by dispossession’ framework, Holden et. al (2011) found that Indigenous peoples’ dispossession by mining operations in the Philippines were characterized by: a lack of adherence to Indigenous peoples rights to Free Prior and Informed Consent (FPIC); physical displacement; destruction of sacred places; environmental destruction; adverse social impacts; disruption of local economies; replacement of local economic structures with cash-based economies resulting in lack of control and uncertainty; and lastly, the militarization of Indigenous land.

Through discrimination and disregard for communities’ well-being or very survival, many residents saw the company as a colonial influence or a Canadian continuation of Spaniard dispossession. Further, as a result of inadequate/lacking corporate processes to solicit Free, Prior and Informed Consent (FPIC) for mining operations, participants concluded that their rights as Indigenous peoples had not been respected and that the company’s presence constituted an act of appropriation. Some had sold pieces of their land, having been told that it would be used for farming purposes. Others, as current/prospective employees of the mine, were pressured to sell the land of interest to the company in order to keep their jobs. Some reluctantly agreed to sell their land and minimize their losses after seeing the land disturbed by underground mining operations, fearing it would no longer be farmable. Others were simply told that their

land did not belong to them; it belonged to the state – in which case the land purchase was simply a ‘nicety’ to an otherwise “straightforward” state eviction. Manufacturing consent, denying rights of Indigenous peoples to Free Prior and Informed Consent (FPIC), intimidation, violence or providing false information to acquire land are commonly documented tactics in contested mining zones (Gordon & Webber, 2008; Holden et. al, 2011; Imai et. al, 2007).

For others, experiences of contested land rights were far from over. Those farther from the mine noted that company employees had begun surveying their land. “They want to enter our land without our permission,” some said. For Estela, defending the land was not easy; she said:

What they do is find a way for people to despair [in regards to the state of their land, or, their land rights], because they already know what is there, and since people don’t want to sell their land, they have to find a pretext in order to advance and for people to sell their land . . . those who haven’t sold are the ones that are suffering [even more].

Most participants reflected that Goldcorp had failed to provide adequate information or levels of safety that would permit residents to make a free and informed choice about land sales. Further, as Constanza alludes, various participants reported witnessing or experiencing intense coercion, manipulation, criminalization, and violence for refusing to sell their land. Consistent with these reports, Imai et. al’s analysis of Goldcorp’s operations in San Miguel Ixtahuacán and Sipakapa found that the company not only failed to solicit consent for their operations, but also attempted to sabotage the local democratic processes of the Sipakapa people – a collective vote or *consulta*, to decide

whether or not the community agreed to mining operations (2007). Relevant to the issue of violence/coercion, the authors noted that within a historical context of genocide and current militarization, the company's 'informational campaigns' were likely interpreted as a "menacing use of economic and political power" (p. 122).

Indeed, through discrimination and violence, residents connected Goldcorp's impact on the local community to experiences of assimilation, or cultural and spiritual *genocide*. Some residents for instance, noted that the company had funded projects in competition with existing institutions that championed bilingualism and Mayan cultural rejuvenation. Some had lived a history of Spanish imposition, where students weren't allowed to speak Mayan Mam in their classroom, and if they did, they faced physical abuse. In contextualizing Spanish-only initiatives in relation to a colonial past, Aura said: "They should be bilingual, Mam-Spanish, but it was never done...now there are others who want to shut us out from what we are recovering."

In the recent past, residents had discussed collectively overcoming an eroded identity and a sense of inferiority brought about by colonial mechanisms. Yet now the protective processes and structures they had put in place were being undermined by top-down approaches to development, in many cases related to the undue influence of Goldcorp. Residents living in close proximity to mining operations also reported increased organized militias near their homes. This armed presence was seen as a mechanism to intimidate and silence mine opponents and regulate local residents. In Raul's view, Goldcorp had been able to capitalize on a history of genocide and fear in establishing themselves as a dominant force in the region. He said:

Since Guatemala fell into the armed conflict and when the state launched an army

against all the people, everyone was afraid, so that is what the company thinks [plans], because if there is an army, there is fear . . . before the mine was here, we had never seen the army here, but when the company came, when there was a mass protest, the mining company saw a way to justify bringing soldiers here. And up above [where the mine is located] they have their security, their gate, and their station inside. And if it was on their own land . . . but it is on our territory!

From 2000 –2011, human rights groups have documented² 16 death threats, 3 attempted murders, 9 cases of persecution/surveillance and intimidation, 4 cases of raids/forced entry and several cases of arbitrary detainment and beatings of individuals opposed to the Marlin Mine (Observatory for the Protection of Human Rights Defenders, 2011; Unidad de Protección a Defensores y Defensoras de Humanos, 2009). To Andres, this military-like presence in the region was a racialized targeting of Indigenous peoples shaped by a historical legacy of the armed conflict and genocide. He reflected:

Because within the 36 years that people died, [almost] all were Indigenous peoples; to the government, we are their enemies, they do not want us to declare the truth – what we feel, what we see that is against us. Even if it is expressed in the decentralization laws [related to the peace accords, e.g. decreasing military power], it has not been accomplished.

For both these men, Goldcorp's invasive and military-like presence was both facilitated and exacerbated by state neglect and marginalization that made the government complicit in the company's operations. A historical memory of violence informed their analyses of current experiences of control/intimidation given unchanged conditions of Indigenous

² These are very conservative estimates, as these experiences often go unreported. Through our time in the community, residents reported that death threats and surveillance were incredibly common occurrences.

marginalization and dispossession. Given the invasive and expanding presence of the company, and its impact on environmental, social and psychological spheres of the community, many viewed the presence of the mine as an ominous process of extermination. One participant lamented: “they will finish the Mayan people of San Miguel.” These experiences are consistent with “a growing privatization of the means of violence” (Norget, 2005) or “militarized commerce” (Holden et. al, 2011) in the mining industry. In discussing mining operations in Chile, Colombia and the Philippines, scholars note that mining companies often normalize conflict as an expected cost of operations, and may employ militaries and other armed groups to secure assets (Gedicks, 2010; Gordon & Webber, 2008; Holden et. al, 2011). In some cases, ‘security concerns,’ may be outweighed by lax environmental regulation and low labour costs common in war-torn countries (Gordon & Webber, 2008). If a history of conflict exists in a region, companies or state governments may even capitalize on these existing divisions to shift the blame to local communities. This enables mining companies to escape accountability in triggering violence (Holden et. al, 2011; Norget, 2005). State/company violence or criminalization against Indigenous communities is often fueled by racist discourses that construct them as dangerous, primitive or terrorists (Holden et. al, 2011) enabling a continuation of genocidal ideologies as Indigenous peoples again become the defacto ‘problem’ or the common threat to ‘national unity’ (Tuyuc, 1998; Munarriz, 2008; Corntassel et. al, 2008).

Gendered Intersections of Inequity

Experiences of poverty, dispossession and genocide also were inextricable from gendered inequities faced by community members. For women involved in the resistance,

for instance, threats and intimidation were premised on their gender as well as their opposition to Goldcorp's operations. With historically less access to education, many women were unable to read or write, and to a lesser extent, communicate in Spanish, making it difficult for them to advocate for themselves. In cases of familial land of interest to the company, women often did not receive compensation from the transaction, or their land was sold without their knowledge or consent. Lina recounts the experiences of some of her neighbours:

There are some whose experiences have resulted in tears . . . A woman a while back, her husband lived in the United States, but I don't know how, whether it was the engineer or someone else in charge of buying land but someone [from the company] found the number of this man living in the United States . . . During this time this woman's mom got sick so she went to Guate [Guatemala city], to the hospital, to go visit her mom. In this time, this man from United States was in touch with the company, and once the woman returned, the land was already sold. She was very upset, 'what gives you the right to sell the land?' she asked. 'Oh well, I already sold it and it is my land, it is not yours. I will give you half of the money for it but the rest is mine,' he said. The woman started to cry because where was she to go? She didn't have anywhere to go . . . she is crying for her house still. She had to leave. The mine started to clear cut the trees on her land, they started building more and more . . . That is what the mine is doing now. They do what they want . . . Since the woman didn't want to sell . . .”

Many participants mentioned increased incidences of violence against women, including intimate partner violence, sexual assault and rape. Residents observed that these

experiences appeared to be linked to increased alcohol consumption and disposable incomes in which employment in the mine was the largest determining factor. There is very limited research on the health of women in mining affected communities. The little research that does exist suggests that mine-worker employment plays a significant role in psychological distress among mine-worker's spouses. These experiences are characterized by marginalization, role over-burdening due to taking on sole responsibility for previously shared household duties, economic vulnerability, the risk of intimate partner violence, and isolation (Coumans, 2009; Sharma & Rees, 2007). Bulmer's study of mining communities found that several social conditions result in the construction of an exclusive 'occupational community,' in which men build 'homosocial bonds' with their coworkers (1975). In this way, the majority of co-workers spent their leisure time drinking with these friends and consequently, in combination with long shift work, being extensively absent from family life (Bulmer, 1975). By changing local economies and opportunities then, particularly along gender lines, mining operations appear to change the social/familial structures of communities and exacerbate gendered inequities.

Consistent with previous research, residents often reported disproportionate employment opportunities for men as well as gendered divisions and inequities in households and the larger community. In some cases, men had left their wives to fend for themselves and their children, sometimes without their homes or a source of income. Participants reported that for some mineworkers, their wages had given them a sense of entitlement and status that made others in the community targets of discrimination and abuse. The few women employed at the mine on the other hand, were tokenized for corporate advertisements. A few residents discussed the issue:

[Maco]: Yes, they [the men who work at the mine] feel every time more powerful right? They say, look, I bring the money, and you, nothing, no?

[Alejandra]: “I wear the pants around here!” [in imitation]

[Maco]: The only woman employed in the mine, she was used for a lot of propaganda by the mine; she was the woman who was driving I don’t what type of machine . . .

[Andrea]: She was there but they fired her, that was just propaganda in the beginning.

[Flor]: She was just for the photos and videos.

Thus, from participants’ perspectives, the company further marginalized and endangered women while also objectifying them for the purpose of promoting the benevolence of their operations. Further, as a result of increased economic and gendered inequity, women and the larger community’s sense of security were destabilized, in part, through violence and discrimination.

A Global Context

These intersecting sites of oppression were experienced within global conditions of inequity, in part, as a result of the lack of oversight of Goldcorp’s activities in the region. Participants reported that the company’s global presence and influence within a context of national/local poverty, and disregard for the rule of law appeared to be an insurmountable barrier to their wellbeing. For participants, imposing silence was seen as central mechanism for company control as it left community members without advocates and allies to demand justice and speak out about their rights. Even municipal/regional religious leaders had limited ability to advocate for the community as they also faced

grave dangers as a result of speaking out.

Gustavo expressed his frustration at Goldcorp's overwhelming power in the region:

So then where can we find a person, a lawyer, a law that will recognize what is written – to abide by the international convention 169 pertaining to Indigenous peoples? It has not been done because they do not respect us. The company is a multi-millionaire, they have everyone silenced so that they do not declare things as they are; they mock the people of San Miguel. And we can't find the way to stop them. The Catholic church goes up and down, even our priest, and the archbishop have received death threats. So, we would like to find someone who can help us escape from the mouth of this monster.

For some, the company's financial status made their presence in San Miguel a boundless threat to the community – an overwhelming “monster” extinguishing their voices and their experiences.

The company was identified as a powerful global actor with enormous influence – by capitalizing on localized poverty, lack of respect for international laws, government corruption and ongoing political conflict. Gustavo was one of many participants who referred to the International Labour Organization's (ILO) 169, a “legally binding international instrument” pertaining to “Indigenous and tribal peoples” that outlines international rights of participation and consultation (ILO, 1989). Of particular relevance to community members were aspects of the instrument that emphasized the rights of Indigenous peoples to free, prior and informed consultation, to decide their own priorities for development and to exert control over their own development. Although ratified by

the Guatemalan government, legislative measure have not been taken to implement the ILO 169, further, Goldcorp failed to respect these rights in establishing the Marlin Mine (Imai et. al, 2007). It has been repeatedly noted that international rights and Indigenous laws relevant to transnational mining are rarely respected as they represent the rights of relatively powerless communities (Holden et. al, 2011; Munarriz, 2008). In contrast, mining companies, financing institutions and state-governments, typically motivated by bottom-lines willfully ignore their obligations to abide by these laws, focusing on bilateral agreements, namely, state-corporations and corporation -financiers. This results in a fictitious construction of ‘corporate social responsibility’ premised on abiding only by laws that do not pose limitations or barriers to mining operations (Gilberthorpe, 2012). This may include a dismissal of Indigenous peoples rights to the land, self-determination and wellbeing.

Nation states are also influenced by the mining sector and financing institutions that lobby to minimize environmental and social regulations under the rhetoric of developing more ‘competitive’ market conditions. In fact, under pressure by financing institutions and the mining sector, since the 1990s’, 90 countries have changed their mining laws - eroding protective mechanisms for environmental/human health and safety, minimizing government returns (via reduced taxation, import fees) and further privatizing and commoditizing natural resources (e.g. land, water) (Gordon & Webber, 2008; Imai et. al, 2007; Munarriz, 2008). This poses a significant threat to the health of mining-affected Indigenous communities and infringes upon their rights to decide their futures and to ensure their survival.

Research Findings Summary

In summary, local residents reported that Goldcorp's mining operations had profound negative impacts on their wellbeing as manifested by intersecting experiences of oppression. The Marlin Mine both exacerbated and introduced 'new' poverty manifested by precarious or exploitative work conditions, food insecurity, limited educational/career opportunities, and fragile agricultural economies. These conditions in turn made local residents' even more susceptible to the impact of company operations. Residents connected current experiences of land appropriation characterized by trickery, unfair prices, coercive tactics, criminalization and violence, to historical experiences of colonization and dispossession. Through uneven and gendered distribution of wealth and opportunities Goldcorp's operations further exacerbated inequity and conflict among communities and households. Top-down company projects undertaken without a respect for Mam-Mayan heritage similar to militarized or armed monitoring and intimidation of mine opponents, were both seen as forces of extermination of distinct cultures and existences by participants. Goldcorp's presence in the region thus was seen as maintaining a continuation with a genocidal past. Lastly, a global context of inequity marked by deregulation, minimal environmental/social protection and a lack of respect for international/Indigenous laws continue to limit the rights of local residents. These global trends pose a profound threat to the health and wellbeing of the community of San Miguel Ixtahuacán.

Broken Promises of Peace

Throughout the 36 years of conflict in Guatemala, 83% of the victims were Mayan Indigenous peoples, constituting state genocide (CEH, 1999). Within the department of San Marcos alone, where Goldcorp's Marlin mine is situated, 15 village massacres

occurred (CEH, 1999). The Peace Accords – a series of declarations meant to set the course for egalitarian political reforms, in the words of one Indigenous leader at the time, reflected “our desire for harmony, justice and peace” (Tuyuc, 1998; p. 40).

One accord, the Agreement on Socioeconomic Aspects and the Agrarian Situation sought to address economic marginalization of Indigenous peoples, and through redistribution, improve conditions for the 80% of the population living below the poverty line. Yet these reforms were never carried out (Tuyuc, 1998). Almost prophetically, Rosalina Tuyuc, a Mayan Kachiquel politician, founder of the National Association of Guatemalan Widows reflected on the challenges for peace stating:

There are sectors of Guatemala who don't want peace principally because the accords imply reforms to the military, judicial, economic and agrarian structures. This means affecting change on the most economically powerful institutions, allied with the military, it will not be easy for them to release all they have accumulated at the cost of the poverty and misery of the worker, of the campesino and of the Indigenous peoples.”

These reflections remain relevant to present-day Guatemala. Are privileged actors willing to give up some of their wealth or power for a more inclusive and peaceful society? A continued lack of respect for Indigenous law, sovereignty and land rights, as evidenced by residents' reports, continue to be fundamental barriers to peace, often tied to injustices in the mining sector. Perhaps even more disconcerting is that in many cases, companies aggressively push large-scale projects on Indigenous communities, claiming to bring poverty alleviation that communities have so ardently pushed for, yet in actuality, they are worsening conflicts and inequity.

Another accord, the Agreement on the Rights and Identity of Indigenous Peoples declared that Guatemala is a “multi-ethnic, pluri-cultural, and multi-lingual” country and emphasized the right of Indigenous peoples to be adequately consulted on any state-decisions or projects of potential impact. Yet, in this same period, new laws were passed without taking into account the Indigenous majority. A new mining law passed in 1997 for instance, continued a trend towards neoliberalism through decreased national royalties and environmental regulation premised on the assumption of state ownership over Indigenous rights to the land (Tuyuc, 1998). Only months after the murder of Bishop Gerardi in August of 1999 (author of *Guatemala: Never Again*, a report of the years of violence) the Marlin Mine project was granted an exploration license (Imai et. al, 2007).

Now 16 years after the signing of the Peace Accords, and on the eve of The 13th *Oxlajuj Baqtun*, the end of a major Mayan calendar cycle, peace and justice for the Indigenous peoples of Guatemala remains far from reach. This study has important implications regarding the roles and obligations of nurses and other global actors. In the absence of state legislation to respect Indigenous rights, what are mining corporations’ responsibility to peace and equality? Given that most mining companies are based in Canada (Canadian Extractive Resource Revenue Transparency Working Group, 2012), with the worst record on environmental sustainability and human rights (Whittington, 2010), how does Canadian economic policy enable conflict? What responsibility does the average Canadian citizen play in perpetuating these injustices?

More specifically, we might reflect on nurses’ mandates and commitment to global health and justice. The World Health Organization recognizes peace as a prerequisite to health (1986). This requires that nurses profoundly understand the key

determinants of conflict, war and genocide and emphatically consider these factors in meeting the health priorities of diverse communities. The health challenges of mining-affected communities point to the need for nurses to embrace concepts of environmental justice, community sovereignty, and free prior and informed consent. Given a climate of contested claims of the harms and benefits of mining operations, nurses should be guided by a sense of responsibility for their clients and communities and take precautionary measures to ensure human and environmental health (Registered Nurses Association of Ontario, 2013). Further, we ask nurses to heed Tuyuc's words carefully – are we willing to be part of the profound changes needed for peace and equality, even if it costs us some of our comfort or our privilege? San Miguel Ixtahuacán residents, like other mining-affected communities have educated us about the indivisibility of political violence and health experiences. It is time for nurses to heed this call if we are to work towards global health and peace.

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CHAPTER 5

GOLD MINING ON MAYAN-MAM TERRITORY: DISCORD, DISTRESS AND RESISTANCE IN THE WESTERN HIGHLANDS OF GUATEMALA

The Canadian mining sector represents over 75% of the worldwide transnational mining industry (Foreign Affairs and International Trade Canada, 2009). Of increasing concern particularly among Canadian mining operations are the poor environmental and human rights records of this sector that pose a threat to the health, wellbeing and harmony of diverse local communities (North, 2011; Whittington, 2010). In our previous writing, we have focused on macro-level findings: intersections of poverty, genocide, gendered inequity and dispossession that operate within a context of global inequity, adversely shaping community wellbeing. In this paper, we present findings of an anti-colonial narrative study conducted with a mining-affected community in the Western highlands of Guatemala. Specifically, we will discuss community-level or ‘meso-level’ health experiences of residents of the municipality of San Miguel Ixtahuacán, Guatemala.

The Marlin Mine is one of at least 20 gold and silver mining projects operated by Goldcorp throughout the Americas (Goldcorp, 2013). To the best of our knowledge, we are one of the first researchers to examine the impact of a large-scale mining operation on the wellbeing of communities from a nursing perspective. Research in other fields, however, suggests that transnational mining operations pose profound threats to communities. For instance, several researchers have pointed to risks of heightened food insecurity, economic vulnerability, environmental contamination, conflict, and gendered inequity (Ahmad & Lahiri-dutt, 2006; Bury, 2004; Coumans, 2005). In the case of the San Miguel Ixtahuacán Mayan Mam peoples of the Western highland of Guatemala

living in close proximity to the Marlin Mine, previous reports indicate increased environmental risk, threats to water quality, housing and safety (Basu et al., 2010; [COPAE], 2010; Laudeman, Montgomery, & Remington, Robinson, 2010; Wauw, Evens, & Machiels, 2010). The over-arching purposes of our study were: to consider the political context of local residents in close proximity to the Marlin Mine, including the role of resistance in shaping health experiences; and, to understand the impact of mining operations on the well-being of residents in this community. Guided by community members' perspectives and expectations, we sought to illustrate the collectively felt, or relational threats to wellbeing experienced by local residents. In an earlier paper we outlined ways in which mining operations intersected with macro-level forces, both exacerbating existing challenges and bringing about new challenges for community wellbeing. Here we focus on community-level experiences of *social unraveling*, with particular attention to two aspects: the *climate of fear and discord* and *embodied expressions of distress*. As well, we examine community responses to these experiences through *acts of resistance*. Lastly, we will consider implications for nursing scholarship in light of participants' experiences with mining and conflict.

Review of the Literature

Three interrelated areas of relevance to this research were reviewed: (a) mining workers, 'mining towns' and mental health; (b) political violence, conflict and the mining industry; and (c) the notion of resistance. Search terms that guided the review were: Indigenous health; mining; industrial impact; violence; wellbeing; and psychological. Additionally, related words in different combinations were incorporated into our search strategy. Databases that were searched included Scholar's Portal, SCOPUS, CINAHL and

MEDLINE. Because there is little research in this area, we set broad parameters for this literature search, and included work from 2000-2013.

Mining Workers, ‘Mining Towns’ and Mental Health

Most researchers who have examined the mental and emotional health impacts of mining have focused on mining workers and the role that their work structure plays on their psychological wellbeing and/or quality of life. Recent studies, for instance, have found that shift-work, fly-in/fly-out work and other workplace stressors may be related to increased loss of familial bonds, anxiety, depression, alcohol consumption/binge drinking, and other ‘high-risk activities’ (Donoghue, 2004; Gibson & Klinck, 2009; McLean, 2012; Sharma & Rees, 2007). The impact of mining operations at the community level, particularly in low and middle-income countries has received less attention.

Since mining work continues to be a highly male-dominated sector, ‘mining towns’ — settlements designed around mining work or pre-existing communities largely influenced by the presence of one industrial employer — may perpetuate gendered inequity within communities and households (Sharma & Rees, 2007). Research in this area has indeed found that women in mining towns are vulnerable as a result of their economic marginalization, social isolation and increased household responsibilities due to often-absent partners (Sharma & Rees, 2007). Further, the influx of male workers into the region is often accompanied by increased levels of precarious sex work, intimate partner violence, venereal diseases and gendered discrimination as social relations are restructured to cater to predominantly male consumers (Ahmad & Lahiri-dutt, 2006; Bhanumathi, 2002; Gibson & Klinck, 2009; Sharma & Rees, 2007). While a few researchers have studied the experiences of local women, particularly mine workers’

spouses, little research has examined the impact that these gendered relations/inequities may have on society at large.

Very few studies have investigated the everyday mental health challenges experienced by mining-affected communities. At the aggregate level, Dang and colleagues examined the mental health of a community residing in a mining zone in the Hubei province of China (2008). The mental health status of 93 villagers were compared to a control group (n = 101) using the Symptom Checklist 90 (SCL-90) and the State-Trait Anxiety Inventory (STAI). Results indicated that mining-affected residents had significantly elevated levels of somatization, obsessive-compulsive symptomatology, interpersonal sensitivity, depression, anxiety, and psychosis symptoms relative to the control group ($p < 0.05$). These authors also found higher levels of heavy metal contaminants among the study population but no link was drawn between these results in the mental health status of these residents (Dang et al., 2008). Dang et. al's findings have important implications in understanding the susceptibility of a mining town to mental health sequelae. Studies focused primarily on rates of occurrence however, provide little insight into the mechanisms or factors prevalent in mining-affected communities that make residents vulnerable to mental illness.

Goessling examined the mental health of 22 women in close proximity to Bauxite mining operations in the district of Andhra Pradesh, India. Open-ended group interviews revealed themes of stress/worry, anxiety/fear, economic stressors, and feelings of mistrust as a result of bribery, coercion, and violence. Of note, many women reported that mining company officials exclusively negotiated with men in their attempts to gain access to land for their operations. This reality was reported to have contributed to women's increased

vulnerability. Further, everyday threats to the natural environment and a constant fear of displacement contributed to chronic stress (Goessling, 2010). Research with Indigenous women in other regions of the world reveal that mining operations may increase gendered vulnerability including mental health challenges due to environmental and economic precarity (Ahmad & Lahiri-dutt, 2006; Coumans, 2005). These studies provide insight into the psychological or emotional challenges experienced by women and their relationship to socio-cultural changes prevalent in local mining towns. Their sole focus on women however, may have limited implications in understanding mental health experiences of the wider community, particularly the health of a community as a relational whole.

Political Violence, Conflict and the Mining Industry

A small number of researchers have examined the influence of large-scale mining operations on communities in terms of dispossession and structural violence. These scholars point to various community challenges including risks to food security, erosion of spiritual/cultural relationships to the land and increased conflict and emotional insecurity (Bush, 2009; A. Gedicks, 2003; Gordon & Webber, 2008; Holden, Nadeau, & Jacobson, 2011). A clinical reflection of a former coal-mining town in the United Kingdom characterized residents' suffering as marked by emotional distress, substance abuse, and intergenerational/gendered abuse within a larger context of structural violence (Roberts, 2009). In many cases, the presence of mining operations has occasioned increased militarization or forced displacement, introducing a climate of unrest and intimidation often shaped by historical processes of colonial displacement, genocide or war (Holden et al., 2011; Imai, Mehranvar, & Sander, 2007; Klare, Levy, & Sidel, 2011;

Munarriz, 2008). The militarization of mining regions has also been associated with increased vulnerability, alcoholism, violence, and community fragmentation (Ahmad & Lahiri-dutt, 2006; Katsaura, 2010; Szablowski, 2002). While mining poses many threats to sociocultural structures (Eligio, 2012; Gedicks, 2003; Gilberthorpe & Banks, 2012; Hilson, 2002; Hirsch & Warren, 1998), health challenges arising from these changes remain largely unstudied.

Indigenous peoples' experiences with large-scale mining are uniquely shaped by their relationship to resource-rich land, unique socio-economic systems and modes of governance, and, an ongoing legacy of colonial violence and dispossession. Several authors have framed the experiences of Indigenous communities' experiences with mining operations as 'resource conflicts,' 'resource wars' or even paradigmatic wars (Gedicks, 2003; Mander & Tauli-Corpuz, 2006; Whiteman, 2009). These terms are used to describe divergent views of the land, resources and ownership between Indigenous communities and mining corporations that can result in conflict. Failure on the part of mining companies to obtain Free Prior and Informed Consent (FPIC) from local communities can further provoke conflict by posing a threat to residents' community sovereignty, spirituality or economic systems (Endres, 2009; LaDuke, 2005; Sherman, 2009; Simpson, 2003). Further, mining may introduce unique challenges to agricultural communities whose livelihoods are dependent on local lands (Downing, 2002; Goessling, 2010). Particularly among mining-affected Indigenous regions, lax regulation, systemic impunity for those supporting the mine coupled with the criminalization of dissent and extrajudicial killings and kidnappings of those opposing the mine have been observed ([UDEFEQUA], 2009; Katsaura, 2010; Vandenbroucke, 2008).

Resistance

Resistance has been defined in various ways. Particularly relevant to our study are conceptualizations of resistance that reflect the potential to counter oppression and chart collective meanings and possibilities (Bargh, 2007). From this perspective, individuals and groups engaged in resistance possess a critical orientation or a political stance that opposes imbalances of power. In Indigenous contexts, decolonization, demilitarization and survival (Alfred & Corntassel, 2005; Chrisjohn & Young, 1997; LaDuke, 2005; Lawrence, 2002; Smith, 1999) have all been acknowledged as important forms of resistance.

In places where mining companies have operated throughout the world, community resistance has been widespread and has included community referendums or 'consultas' (De Echave, 2005; Imai et al., 2007), peaceful demonstrations, legal challenges (Sherman, 2009; Sieder, 2011), coalitions, social movements and electoral mechanisms (Gordon & Webber, 2008). At the core of these movements is often a struggle for economic, cultural and environmental self-determination (Gedicks, 2003; LaDuke, 2005). Although the importance of community control/sovereignty is well recognized, its relevance to nursing is not widely acknowledged, and a framework that encompasses these priorities for Indigenous peoples (Stout & Downey, 2006) has not yet been articulated. Environmental justice, sovereignty and sustainability are key areas of concern to global Indigenous movements today (Martinez-Alier, 2002). These notions may inform a nursing scholarship that is highly relevant to a diversity of Indigenous peoples.

Literature Review Summary

Few researchers have looked at mining and its influence on community wellbeing, mental health and its connection to violence and resistance. Some studies have been conducted that focus on issues of conflict and political violence within a context of transnational mining operations by examining militarization, land rights and community control of natural resources. In addition, some investigators have considered the influence of mining-induced displacement, in particular, focusing on women's health experiences. Yet less research has considered the mental health experiences of local residents living in close proximity to mining operations, particularly, the mental health of a community as a whole. A growing body of research has looked at the role of community resistance, community control and self-determination in relation to worldwide mining operations, yet health scholars, including nurse researchers, have yet to examine resistance in relation to concepts such as Indigenous self-determination and survival. Examining these issues through an anti-colonial lens may yield important insights in developing a nursing mandate that is highly responsive and relevant to diverse Indigenous communities worldwide.

Research Design

This study was informed by two theoretical and philosophical perspectives: Indigenous knowledges and Critical theory. Indigenous knowledges are as diverse as Indigenous peoples. Yet they have been recognized for having the unique potential to re-map Indigenous histories and identities, articulate a community vision of self-determination and address and challenge Western hegemonic logic (Kovach, 2009; Dei Hall, & Rosenberg, 2008). We sought to incorporate the unique knowledge systems of our community partners – Mayan Mam residents of San Miguel Ixtahuacán, in order to

enrich and inform our research process. A critical research orientation seeks to deconstruct privileged knowledge claims, or ‘taken-for-granted truths,’ examine historical/political forces shaping present realities, and generate knowledge that contributes to meaningful action or change (Bathum, 2007; Fontana, 2004).

We employed an anti-colonial narrative methodology, with participatory action research (PAR) principles (Khanlou & Peter, 2005; Soltis-Jarrett, 1997) throughout the investigation. An anti-colonial lens is largely influenced by Indigenous knowledge systems. It recognizes the inherent value of cultural difference (e.g. cultural safety), collective history and ontological pluralism. Further, it examines colonialism as an ongoing reality, emphasizing the role of Indigenous peoples’ survival and resistance (Alfred & Corntassel, 2005; Caxaj, Berman, Varcoe, Ray, & Restoule, 2012; Fanon, 2008; Shahjahan, 2005). PAR scholars seek to develop context-bound projects by building democratic or ‘communicative spaces’ and incorporating community priorities that ultimately contribute to meaningful change or solutions (Bodorkos & Pataki, 2009; Burton & Kagan, 2005a). Throughout the research process, we developed strategies for community check-ins and methods of accountability to ensure that the project was responsive to community members’ interests and priorities. Thus, the consent process, data collection, data analysis and knowledge translation all were carried out through group meetings, consultation with leaders and ongoing consent protocols at multiple levels within the community. Over a four-month period, we worked with 54 participants from 13 villages, ranging in age from 18 to 64 years. All of these individuals chose group interviews and photo-voice discussions as their preferred method of participation. Four individuals also chose to participate in one-on-one interviews. Interviews ranged from 60

to 90 minutes in duration and were carried out in the participant's location of choice, usually churches, community centres or centrally-located personal homes. All photos of individuals were excluded from the study unless participants had written consent from the photographed individuals or their parent/guardian. All photographs were developed in duplicate so that the original photo could remain in the possession of participants. The first author lived in the community for four months and returned the following year for a month-long period to help coordinate the Peoples International Health Tribunal, (www.healthtribunal.org), a community-driven knowledge translation aspect of the study. Community evaluation of the study was also solicited during the return visit.

Research Findings

Local mining operation presented expanding and cumulative threats to collective community wellbeing. These threats manifested themselves as an overarching experience of *social unraveling*. Local residents responded to these challenges through *acts of resistance* revealing varied health strengths and protective resources available to community members.

Social Unraveling

Experiences of social unraveling were evident in community narratives of (a) *a climate of fear and discord*; and (b) *embodied expressions of distress*. Mental health challenges were found to be inseparable from the social, economic and environmental challenges experienced by residents.

Climate of Fear and Discord. A pervasive worry for many residents related to the rupture of community bonds, increased mistrust, and fear for basic safety. Deeply divided in their views about the mining company, many participants observed that their

sense of unity, or collective spirit, had been eroded. As Aura expressed, “the people differentiate you by whether you are against the company or in favour of it. . . we are divided, every person with his group.” Through bribes, gifts, and threats, residents reported that the company sought to influence community leaders, workers and other select groups or individuals. This *buying of will*, or reports of corruption, as well as demands of allegiance, led to deep-seated divisions between “friends of the company” and individuals critical of company operations. Ultimately, these conditions manifested as a loss of democratic structures and community capacity, giving rise to further alienation and polarization at the community level. This sense of antagonism largely influenced community processes such that many residents became disengaged and suspicious of decision-making structures and community authorities.

Participants also reported that the company’s presence sharply increased the divide between the ‘haves’ and ‘have-nots,’ as only an elite few were offered jobs at the mine. Residents reported that this economic privilege newly available to some residents enabled them to engage in threats of violence, further perpetuating a context of impunity. This left participants with little recourse to pursue justice or ensure their safety. Juan explained:

Mine employees think that they can just pay a fine or a sum of money [for hurting or killing someone] because they make so much...we make about 35.00 Quetzals a day [4.50 Canadian \$] for work in the field...but they make Q300.00 a day [38.50 CDN \$], that’s why they figure they have enough; this is how they see it...it’s not like they are going to maintain the family of whoever dies...they have

the power of money, now they feel powerful; if somebody tries to stop them, they threaten them for speaking against them.

In these ways, participants illustrated the vast power imbalance that the company had introduced by offering very limited employment and instigating community fragmentation.

Along with threats to physical security and personhood, community conflict also manifested through economic elitism and discrimination. Matilda reported:

There is a lot of discrimination and domination among the men and women and also among their daughters and sons, because the ones who have work [at the mine] they buy things for their kids...the kids of people who work at the mine have good shoes, good clothes, good coats, and they mock those who don't.

In some cases, social derision was not just an articulation of economic privilege, but also an attempt to silence those who resisted. Social targeting, control or punishment were often gendered processes, geared towards 'disciplining' women for resisting. Most commonly it was women who expressed concern that company supporters were attempting to introduce conflict in their marriages so that they would be 'left alone,' without husbands. Both genders however reported experiences of isolation for speaking out against the mine.

Many local residents reported that the community had been safe and peaceful before the arrival of mining operations. With the arrival of the company into the region however, participants reported experiences of more overt targeting and control exerted through local militias that they believed to be hired or paid for by Goldcorp. In many cases, residents identified these militias as state forces or local narco-trafficking networks.

Participants consistently reported that these networks had increased with the arrival of mining operations. Further adding to this militarized environment, was an increased ownership of guns in the community – particularly among mine workers seeking to protect their earnings outside of a banking system. Participants recounted experiences of being followed and monitored, as well as threats, intimidation, kidnappings, torture, witnessing the murder of loved ones and being victims of attempted murder. Threats and intimidation were often delivered via cell phone messages, drunken yelling outside of individuals' homes, in person, or hand-delivered notes. Concha's family, for instance, received a text message that read "you are pure shit for the people, why don't you want development, just leave the house and we will kill you." Walking home with his 6-year-old granddaughter, Fausto ran into a neighbour carrying a gun. After insulting him for being critical of the mining company, he showed him his gun and said, "my son just finished someone off [killed somebody]." Fausto believed that the presence of his granddaughter had saved his life. These near-death experiences, threats and intimidation profoundly transformed the social landscape of residents. For many residents, past notions of their surroundings as a place of *home* or *community* dramatically changed, as they began to view their environment as a contested or militarized space, a war zone in which they were maligned as 'terrorists,' or 'enemies.' In essence, participants described a sense of being 'on their own,' without protection or resources. The net results were feelings of powerlessness and despair.

Acts of violence were also enabled by false accusations and the silence or 'neutrality' of authorities. Moreover, acts in support of the resistance movement often made individuals vulnerable to criminalization or targeted attacks. Accompanying these

traumatic experiences was a deep sense of betrayal and hurt as neighbours and family members often turned against each other. Daisy described the events that led to the persecution and murder of her cousin, Manuel:

The company had organized, well, they had communicated with the authorities to have night watch. And that is how they started generating suspicion about Manuel...More than anything, [what made him a target], was that sometimes when I would go to meetings, he would pick me up in his motorcycle...so they would be watching who was supporting us and that is why they lynched him. They accused him of so many things, but he was innocent! I can testify here that he was an honourable person, a decent person, he didn't participate in what they said...They burned [him and] his house down with gasoline...He was burning so he ran into the water [river] and when he got out...they grabbed him... When Silvia [Manuel's brother] saw that they were pouring gasoline all over the house and lighting it, she said, since they are Christians - there are Evangelicals and Catholics - she said, that they didn't have to do this without proof and they told her "shut your mouth lady because you too [might be killed]; we should lynch this woman as well because she is also against the mine, let her try to bring people from other communities to defend her *now*," they said...And before, nothing like this had happened!

Horrible events such as this evoked traumatic memories, fear for one's safety and an intense grief over relatives or friends who had been murdered. For many participants, nothing explained this sudden departure in community life more than the company's influence in both polarizing and provoking conflict in their neighbourhoods. From

participants' perspectives, the company was the only benefactor of such conflict and divisiveness; individuals' fear for their safety effectively served to limit dissent or opposition.

In an earlier publication based on this research (Caxaj et. al, 2012), we discussed the increased militarization in the region and its historical linkage to a past history of systemic discrimination and genocide, as well as the role of economic and gendered inequity in perpetuating conflict and vulnerability. Here, we have attempted to further illustrate the climate of intimidation, violence and conflict that participants reported. It is clear that increased polarization, victimization and threats marked individuals' day-to-day lives with terror and mistrust. Witnessing these changes in their community contributed to feelings of alienation and impotence among local residents, and, further, was a source of sadness and grief for a loss of relationships, kinships and community. For residents, the presence of local mining operations played a key role in generating these profound changes to the socio-cultural landscape, ultimately shaping community life and community health experiences.

Embodied Expressions of Distress. Individual manifestations of distress were deeply rooted in community-level concerns and often manifested as intricately entwined physical, emotional and spiritual afflictions, that is, *embodied* or unified (Wilde, 1999) experiences of suffering. Shaped by a *climate of fear and discord*, experiences of distress were marked by collective feelings of uncertainty, apprehension, fear and mistrust. The most severe mental health challenges however, were often reported by individuals who had been victimized as a result of their opposition to local mining operations. The little protection afforded to residents willing to speak out against the mine often put them in

the direct line of fire, eliciting a profound sense of doom or resignation. Residents also reported symptom clusters overlapping with Western constructions of anxiety, depression, panic attacks and PTSD. The Central American construct of ‘*susto*,’ a profound response to fright, associated with loss of sense of worth, energy as well as weight loss, sadness, insomnia and physical pain (Durà-Vilà & Hodes, 2012) were commonly reported by participants. Further, more general experiences of suffering characterized by somatic pain/physical symptoms were prominent in participants’ accounts. Alexia and Clara spoke about their experience and that of other women in their community:

[Alexia:] I can’t relax because there is so much *susto*. I have fear and [sometimes] I can’t feel my body...I feel [the pain] sometimes in my lungs, and I feel very tired. It’s like a cramp like in both of my feet. It gets to me, and its like it burns here [points to chest] ... And with those nerves, I feel like, who knows, this *susto* that I have...

[Clara:] so really, it’s more so, we are sick because of the company...it makes us angry, it brings sadness, and everything; so the sickness starts from the nerves...

Many participants described recurring nightmares and hypervigilance due to a fear for survival and basic security. Cora, who suffered physical and mental health challenges for years due to resisting mining operations remarked, “Sometimes I get it in my head that I am going to die...since I am already sick, maybe I am going to die...” Ester, who had witnessed the attempted murder of a relative with a firearm in her home, reflected, “Now that one has lived it...you keep thinking, the same thing can happen again.” Many of the participants reported new fear and discomforts when walking outside, while prior to the arrival of the mine they had done so with ease. In addition, some described sleep

disturbances due to “nerves,” anxiety, or fear of what could happen to them. This constant state of alertness or “jumpiness” was also found in conjunction with difficulties concentrating, memory retention and other cognitive impairments, influencing residents’ ability to carry out daily tasks.

For some, moments of extreme stress, sometimes due to near- death experiences had caused them intermittent experiences of depersonalization in which they felt like detached observers, external from their own bodies. For Emilio, his afflictions stemmed from worries due to the criminalization/persecution he had experienced after engaging in anti-company activities:

It’s very hard the situation that I’ve lived because of the mine...I was really weakened, there was the problem of the nerves, and the nerves have this impact; they affect us in any type of work, and that affects our sense of worth. Sometimes, I had little sense of worth which made me feel like I didn’t have what it takes to do things; this has affected me... it [the nerves] gave me this head problem, I felt like...it was a load of fire over my head, if not, it would appear in the palms of my hands, if not, then in my feet, along my sides ...this is the extent of the worries that one has had...but a pain...like an iron pressing intensely with fire, it was unmanageable...What felt so bad was that my feet no longer responded, I couldn’t stand up with any strength, it was like, I couldn’t. I no longer had tendons in my knees to keep me up. It was this heaviness, and I completely fell, I fell to the ground, and I suffered quite a bit, but it was the worries that gave me that reaction. It left me without being able to feel better, because no matter what, it was going to leave me without any strength...

Some individuals who had been victimized reported ‘reliving’ these experiences in various ways. One man who had been kidnapped and beaten with a nail-spiked wooden stick described a sudden sense of fear and ‘burning’ sensation in his feet whenever he heard a loud bang. Others reported numbness, headaches, insomnia, prolonged sadness, tingling, faintness, gastrointestinal symptoms, shortness of breath, loss of bodily control as well as somatic pain or pressure on their upper body either as a result of pronounced or chronic worry. Similar experiences of distress were described by friends, family members and neighbours of victims, perpetuating a collective level of vulnerability and uncertainty.

These mental health challenges were described as responses to changes in the psychosocial environment of the community. A *climate of fear and discord*, for instance, perpetuated an erosion of trust, a loss of significant relationships and a sense of isolation and betrayal among participants. Reflecting on these experiences could contribute to self-doubt, a loss of self-worth or of life purpose. One teacher had been an advocate for students who had developed rashes and other skin conditions which she attributed to the mine. She spoke about the emotional suffering she had experienced as a result:

These were serious problems last year as I told you. From that I got sick with depression. I was really affected. Oh, I felt *so bad* because I didn’t *know*... We thought it was simply a matter of telling the truth and trying to help the kids; it wasn’t to accuse anyone, only to see what we could do to get them treatment. This was our intention, that the kids be cured. That is why we informed other organizations, but from then on, the *mine* pushed the people to force me out, but that wasn’t the solution. [She begins to cry].

For others, particularly men, threats or experiences of control due to engaging in the resistance contributed to a normalization of risk, resignation or fatalism. Reflecting on the threats that local mining operations posed, Hector remarked, “There isn’t much hope [in the community] because it’s very possible that they will kill us or kidnap us. But what I think is, that if they kill me, or kidnap me, it doesn’t matter. What can we do?!”

Experiences of distress in the face of physical threats and violence were also deeply influenced by a history of genocide and militarization. Patti spoke about how the current armed threats in her community evoked memories of past violence:

When I see guns I get nervous, I start to tremble and I feel very anxious...it is always scary, it is concerning to see armed men when you have seen, you feel [it like] a hard blow...I have seen murdered people, in the face, in the heart, without feet. I have seen it many times so then that pain, you feel it, you don’t even want to talk or hear someone talk in that way [harshly]...There [company grounds], the armies [security guards] stand by the entrance. One cannot enter, only a few people can enter. So [almost] no-one can enter...it’s very controlled.

The poignant stories told by the participants reveal the *embedded* nature of social, cultural, and political histories. Moreover, they highlight how local mining operations influence the health of a community. Here, we have illustrated the multi-dimensional and *integral* or *embodied* nature of many individuals’ experiences of distress. Many participants reported a range of symptoms and mental health challenges as much physical as emotional, cognitive, or relational. Participants most severely afflicted often used terms such as ‘nerves,’ ‘depression,’ ‘anxiety,’ and ‘susto’ to describe their distress

responses and attributed this suffering to local mining activities and its ability to shape local community and neighbourhood contexts.

Community Resistance

Faced with mining-related threats to their community, participants were determined to achieve a level of health that was protective, affirming, purposeful and creative. These strengths, posturing and actions revealed diverse forms and sources for resistance, key aspects of them reflected in: (a) a shared cultural identity; (b) a spiritual knowing and being; (c) defending our rights, defending our territory and; (d) *speaking truth to power*.¹ These areas were overlapping and synergistic in enabling community capacity and spaces for healing, growth and wellbeing.

A Shared Cultural Identity. For many individuals, a sense of cultural uniqueness and a desire to preserve their collective identity informed their sense of justice, their sense of worth and a connection to an ancestral past. This in turn strengthened their motivation and their abilities to advocate for themselves and fellow community members. Participants articulated that their way of life and livelihood as well as their customs and traditions were core to their cultural wellbeing. Consuela shared, “We always count on the animals. It's a job and tradition of our grandmas, of our moms because that's what they taught us, so we do the same.” Her son and the family pig are pictured below (see figure 1).

Nora talked about her view of culture in connection to the land. She had worked to instill this relationship to the land onto her children (see figure 2). She shared:

¹ Bayard Rustin, a civil rights activist, first used this phrase in 1942. He wrote “the primary function of a religious society is to speak truth to power.” He then co-authored the widely influential 1955 Quaker flyer “Speak Truth to Power: A Quaker search for an alternative to violence.” (Shapiro, 2006).

My son said to me, ‘take a picture of me here by the corn because...when I grow up I’m going to grow corn here just like my dad’...because I say to my sons, (I only have sons) ...‘always take care of your corn fields, even if you end up being a teacher or a doctor but you will know about everything’...because that’s how we live...

Others discussed a variety of ways that they sought to celebrate their unique culture and traditions, stressing the importance of their shared identity as Mam Mayan peoples being recognized, valued and respected. Often, cultural traditions and values were identified as form of knowledge useful in day-to-day survival. Revealing a flexible and forward-thinking stance, participants often engaged in strategies to ensure continuity of their ancestral teachings while seeking educational and sustainable development initiatives that could enrich community life. In this way, participants countered discourses that equated concerns about mining operations as primitive or ‘anti-progress,’ as they envisioned a traditionalism or cultural identity attentive to a holistic and collective survival and wellbeing.

Defending our Rights, Defending our Territory. For others, resistance was grounded in an active knowledge of one’s rights, an awareness of the legal discourses of rights, and a sense of confidence to name these rights as one’s own. Reflecting on his community’s right to self-determination as outlined in international laws and conventions, Vicente said: “The Convention 169, of indigenous peoples [International Labour Organization’s convention 169] why is this not recognized, why do they not respect us?” Individuals who were able to name these rights paved the way for others to claim them. This collective knowledge further empowered the wider community to advocate for

themselves, and make demands of both the company and other global actors. In engaging with different groups and organizations, Lucky reflected: “whenever we get together with our brothers [and sisters] from other countries, we always talk about our rights, of our life, how we are now [i.e. problems we have] because of the mine, that is what we are defending and that is why we are supporting [the movement].”

Closely aligned with demands for community rights was a desire to defend one’s homeland/community, or engage ‘in defense of the territory’ (see figure 3). Jorge said:

We have up to this point talked about the defense of our territory, or the children. We don’t want to protect only our own lives; we also want to ensure the lives of our children who are just beginning a life. What will be of this little girl eating this fruit? We don’t know what is inside of this fruit; there can be [heavy] metals in it, so then what will be of this little girl? [nena] . . . and not just this girl but surely many children and adults here. . .

Elena shared a picture of her crops (see figure Figure 4), exclaiming, “The land gives us life, we live because of the land.” Similarly, Yoli discussed a picture of trees and said, “That’s how we live . . . almost everyone who works to defend nature is against the mine.” Through these reflections, Figure 4 participants shared a collective and forward-looking vision for community wellbeing, advocating for their family, friends, neighbours, and future generations.

Speaking Truth to Power. Individuals who warned neighbours or raised awareness about the negative impacts of mining operations in their community often named these acts as “clarifying the truth.” Within a context of criminalization and persecution, participants often sought strength and protection in the knowledge, facts and

observations that they believed to be true. For these individuals, there was a moral impetus and urgency to sharing what they knew and speaking out about experiences they had faced. Equipped with these truths, residents sought to mobilize others to resist and to bear witness to the suffering of others. Photo-sharing and conversations often centred on a wish that the international community “see how we live.” Soledad took a picture (see figure 5) of a neighbor. Frustrated with company claims of community development and progress, the neighbor offered a counter-narrative of chronic poverty and struggle, inviting the picture to be shared in order that Canadians would understand the precarious conditions in which residents lived.

Paula juxtaposed pictures of local forests and crops with the deforestation and excavation of the Marlin Mine which had stripped away what had once been a green landscape. Pointing to pictures of trees she said, “This is life.” Then, pointing to the open-pit mine she said, “This is destruction... this is what takes away life” (see

Figure 6)

Spiritual knowing and being. Participants illustrated *spiritual knowing and being* as a source of strength, refuge, and guiding principle towards reciprocity. By

spiritual, we mean broad processes of meaning-making, ontological/existential affirmation and/or relational being in the world (Burkhardt, 1989; Reimer-Kirkham et al., 2012). Spiritual beliefs or conviction sustained hope and stability amid fear or despair enabling many to face every day struggles with a sense of meaning and courage. In discussing the role that faith played in moments of fear or danger, Pablo said: “No matter what happens, in terms of the dreams, the nightmares...we have been able to feel more secure through our trust in the hand of God...it’s the faith that calms us.”

For others, their Christian faith offered a space for sharing and togetherness; often captured through photos (see Figure 7). Church services and Christian ‘celebrations,’ were often described as places of comfort, peace and support. Spirituality was also described as an internal/relational tranquility as well as an emotional respite.

Spiritual knowledge also enriched and complimented ecological perspectives, shaped alternative visions for community wellbeing, and provided a faith-based analysis of political injustices faced by participants. In Catholic masses for instance, repeatedly-performed songs included lyrics such as, “A poor community is easy to buy.” The need for environmental stewardship, particularly due to local mining operations, was also emphasized. A Mam spirituality also shaped the community’s relationship to the land.

Pedro stated:

We want to emphasize that we have a living god, we have a mother that feeds us . . . we breathe it in our lungs, God is in our lungs, it’s in our blood and our breathing . . . because if there wasn’t respiration, how could I express myself now? I am here because God put me here to live on the surface of the earth to face

all of these things, and since God put me here, we will defend her and all that has been created by her hands.”

Like Pedro, most residents talked about *Mother Earth* in a way that revealed a practiced ontology of interconnectedness and life affirmation. Julián for instance reflected:

Mayan spirituality is bound to our *Mother Earth*, to a sacred nature. This was the reality of my grandparents; I will not share in the death of the millions that have died because of religion during the Spanish invasion, and they are the same laws that they have over us now; we are in chains, we carry the burden of this powerful enslavement still. It is the rich who come to plunder our natural resources, we do not harm the *Mother Earth*; we do not touch that [gold, minerals] because that is the heart of the earth.

As these words imply, a spiritual view of Mother Earth was at odds with the colonial roots of Christianity and its continuation through what were described as exploitative laws and operations. Yet most participants, Christian or not, honoured nature as a mother and felt a deep and reciprocal love in their relationship with the land. A valuing of *Mother Earth* and all that she provided grounded many in their stance against mining operations. Thus, they sought to protect her from environmental threats imposed by local mining.

Research Findings Summary

Participants stories revealed a collective ‘social unraveling,’ in where psychosocial experiences were *embedded* in cultural, economic, social and political contexts, which were in turn, inseparable from the influence of local mining operations on community life. In particular, participants described a climate of fear and discord marked by conflict,

violence and criminalization. These experiences had an expanding or cumulative influence on collective wellbeing often evidenced by a variety of indicators of psychosocial distress. Among them: (a) increased community-level vulnerability; (b) mistrust, a loss of social cohesion/support systems; (c) gendered targeting; (d) emotional uncertainty; (e) binge drinking; (f) grief, despair and; (g) impunity amidst intimidation and increased inequity. Mental health sequelae of groups and individuals within this particular context revealed individual afflictions manifested as *expressions of embodied distress*. This distress was marked by emotional, spiritual, physical and psychological suffering. Lastly, participants discussed multiple strengths and strategies for community wellbeing through enacting a shared cultural identity; a spiritual knowing and being; defending our rights, defending our territory; and *speaking truth to power*.

Discussion

Social Unraveling Amid a Climate of Fear and Discord

Heightened levels of militarization, inequity, discrimination, polarization and conflict in the community were experienced with the arrival of mining operations in San Miguel Ixtahuacán. A considerable body of research has focused on the control of land and resources as sources of conflict or disagreement between mining companies and communities (Barber & Jackson, 2012; Hilson & Yakovleva, 2007; Hilson, 2002; Klare et al., 2011; Spiegel, 2012). To a lesser extent, this body of work has drawn attention to increases in violence and militarization as a result of mining operations in a region (Gordon & Webber, 2008; Holden et al., 2011; Katsaura, 2010; Mondragón, 1999). This study is consistent with previous investigations (Hilson, 2002; Holden et al., 2011; Van de Sandt, 2009) that have documented increased conflict, militarization, economic

inequity and social unrest that occur in mining-affected communities. Further, this study expands current understandings of mining conflict and militarization by illustrating the psychosocial and relational consequences of these local threats.

Reports of community polarization and divisions, loss of social cohesion, uncertainty, mistrust within a climate of fear and conflict are consistent with other descriptive accounts of the lived context of residents of San Miguel (Imai et al., 2007; Slack, 2012; [UDEFEGUA], 2009; Vandenbroucke, 2008). Community challenges such as these have also been found among diverse populations amidst political violence or war (Goodkind, Hess, Gorman, & Parker, 2012; Lira, 2010; Miller & Rasco, 2004; Pedersen, Tremblay, Errázuriz, & Gamarra, 2008; Summerfield, 2000). Notably, researchers studying the impact of violence on communities note that traumatic responses are most strongly felt through overlapping threats such as food insecurity, social division, isolation and mistrust (Gelkopf, Berger, Bleich, & Silver, 2012; Miller & Rasco, 2004; Summerfield, 2000). This suggests that collective violence must be understood in terms of its direct impact on mental health as well as the threat that it poses to the socio-cultural structures, economic practices and the environment of a community. The notion that local residents' emotional suffering is a response to both overt violence *and* environmental precarity, socio-cultural upheaval and disruption to economic systems is supported by study participants' accounts. In fact, reports of emotional suffering and distress due to intimidation, torture or violent attacks were typically expressed within a larger narrative *of loss of community, loss of livelihood, threats to the environment and fearing for the future*. Given the multi-faceted nature of threats posed by local mining operations,

mining-affected communities may be particularly susceptible to subsequent psychological distress or trauma.

The importance of incorporating social/institutional reparations into mental health programming particularly in areas of conflict (Burton & Kagan, 2005a; Hobfoll, Mancini, Hall, Canetti, & Bonanno, 2011; World Health Organization, 2005) has been recognized. This necessitates transcending narrowly defined biomedical constructions of care (Pedersen et al., 2008; Ray, 2009). Yet due to ongoing threats posed by continued mining activities, including fragmentation, mistrust and economic or environmental precarity, interventions of this nature might be difficult to carry out. These social conditions present complex barriers to mental health rehabilitation, particularly in communities in which mining operations remain active.

A Social Unraveling: Embodied Expressions of Distress

At the individual or group level, participants attributed a multitude of mental health challenges and symptoms to Goldcorp's presence in the region. Among these were: (a) "nerves" or anxiety characterized by hypervigilance, nightmares, insomnia, difficulties concentrating and memory impairments as a result of ongoing stress/stressors; (b) depression or prolonged sadness in which participants reported low self-worth, ongoing grief, isolation and loss of energy or motivation; (c) acute episodes of "nerves" (*ataque de nervios*) or panic attacks, described as a loss of bodily control, somatic pain or weakness, depersonalization and despair; (d) resignation or lack of hope and (e) "susto" or re-experiencing, ongoing grief, physical pain and/or debilitation. In listing symptoms in this way, we are wary of conflating "local idioms of distress" (Pedersen et al., 2008) to limited biomedical constructions of mental illness (Estrada, 2009; Ray, 2008; Thomas &

Bracken, 2004). The almost exclusive use of these constructions to explain distress among diverse populations, however, makes it difficult to depart from these categories; and we would be equally remiss to romanticize or downplay participants' suffering (Glazer, Baer, Weller, De Alba, & Liebowitz, 2004; Lira, 2010).

In the few studies that have considered mental health among mining-affected communities, anxiety and/or depression-like symptoms including prolonged sadness, loss of energy or motivation, insomnia, ongoing stress and isolation have been previously documented (Ahmad & Lahiri-dutt, 2006; Coumans, 2005; Goessling, 2010). Similarities between study participants' accounts and previous studies focusing on women's experiences may indicate that women's experiences may provide unique insight into understanding community-level distress in these specific contexts. Yet most research in this area has focused on mining workers, with only a few studies examining the wider community's mental health symptoms and women's health experiences (Gibson & Klinck, 2009; Sharma & Rees, 2007). Thus, the breadth of mental health challenges, their relationship to local mining activities and the broader community (i.e. non-miners, men and women, whole communities), still requires further investigation.

Throughout the municipality, participants' accounts of sadness, depression, fear or panic were typically accompanied by physical symptoms or somatic pain. According to Summer (2000), psychosomatic symptoms may be the most universally experienced responses to violence and are considered either communicative (serving to elicit support) or physiological consequences of emotional and psychological suffering. For some nursing scholars, somatic pain is a manifestation of the embodied unity of the self, encompassing body, mind and soul and as such, requires a holistic view of the health

threat (Benner, 2000; Wilde, 1999). For some, these conditions included debilitation, an interruption of daily activities and/or a loss of physical control pointing to the severity of many individuals' suffering and the need for further support.

Experiences of hypervigilance, re-experiencing traumatic events, depersonalization and nightmares reflected PTSD-like symptomatology. Despite the limitations of this construct, at least some criteria for PTSD have been found to be broadly relevant to diverse populations who have experienced political violence (Al-Krenawi & Graham, 2012; Hobfoll et al., 2011; McPherson, 2011; Miller & Rasco, 2004; Sabin, Sabin, Kim, Vergara, & Varese, 2006). The focus of this body of work has been on externally displaced refugees (not current residents in contested colonial struggles), and more generally, on survivors of *episodic* trauma (Miller & Rasco, 2004; Veronese, Castiglioni, & Said, 2010). Pederson and colleagues, on the other hand, examined the impact of chronic political violence on the health of a rural Peruvian Quechua Indigenous community who remained in a war-torn region (2008). Notably, the authors found that there was significant overlap with symptoms reported by participants and those commonly associated with PTSD. Participants however, also reported culturally-distinct typologies of suffering and expanded constructions of traumatizing events beyond armed victimization to include interruptions in cultural protocols, loss of livelihood/environment, poverty and displacement (Pedersen et al., 2008). Similarly, San Miguel Ixtahuacán residents discussed the destruction of the environment, livelihood/land and cultural systems in prompting collective *grief* and *resignation*. While these communities' experiences are largely incommensurable, it may be that shared histories of Spanish colonialism, genocidal conflict, contemporary exclusion (e.g. racism, poverty) and

consequent resistance have shaped constructions of distress and mental health. Other studies with Indigenous and campesino communities with histories of civil war/genocide and colonialism have found similarly broad indicators of psychological distress (Brave Heart, Chase, Elkins, & Altschul, 2011; Burton & Kagan, 2005b; Pedersen, 2006).

Embodied Distress Within a Climate of Fear and Discord: Does Colonial Trauma Fit?

Anti-colonial and contextually-based scholars have attempted to develop alternative frameworks to understand the well-being of Indigenous populations exposed to chronic, cumulative and collective violence (Estrada, 2009; Palacios & Portillo, 2009). Historical trauma, for instance, also known as colonial trauma or intergenerational trauma, has been described as a disease shaped by a culmination of historical and present-day experiences of collective violence, or chronic violence. Most commonly applied to victims of the Jewish holocaust, Palestinian communities under siege, and Indigenous populations in the Americas, the affliction is characterized by a variety of mental health challenges. These include identification with ancestral suffering, unresolved guilt, self-defeatism and *intergenerational transmission* (Brave Heart & DeBruyn, 1998; Haskell & Randall, 2009; Palacios & Portillo, 2009). Discussing Indigenous populations in particular, *transmission* has been conceptualized both as a cycle and legacy of lived violence as historical and contemporary colonial mechanisms, undermine a community's socio-cultural structures, impoverish/restrict livelihood and as such, generate fragmentation and inequity within and among communities (Josewski, 2012; Kirmayer, Brass, & Tait, 2001; Portillo, 2009; Sotero, 2006). Given the long and violent history of colonization and genocide against the Indigenous majority of Guatemala, it appears that

this understanding could also be relevant to the experience of San Miguel Ixtahuacán. Local reports of ongoing grief related to genocidal violence, loss of land/livelihood; despair and resignation related to systemic discrimination and a climate of fear and impunity; as well as a mistrust and fragmentation due to increased inequity for instance, are all fitting with a colonial trauma framework (Wesley-Esquimaux, 2007).

Important to this discussion of colonial trauma, is recognition that “the colonizers never left,” true reconciliation remains to be seen (Alfred & Corntassel, 2005; Chrisjohn & Young, 1997; Shirley & Donahue, 2009) and colonialism has never relented. Quite to the contrary, unceasing large-scale mining operations and collusion by nation-states to protect these private interests over Indigenous peoples’ rights to decide their development priorities represent yet another mechanism of colonialism (Alfred & Corntassel, 2005; LaDuke, 2005; Sherman, 2009). In fact, large-scale mining on Indigenous territory has been identified as a ‘new’ form of colonialism in that it can threaten spiritual relationships to the land, distinct ways of life, unique cultural systems as well as physical survival (Gedicks, 2003; Whiteman, 2009). More broadly, colonial mechanisms of environmental dispossession of Indigenous populations have been characterized as community-level experiences of *disorientation* (threats to traditional economic systems, commoditization), *disempowerment* (exclusion from government decision-making) and *discord* (interruption of cultural/spiritual practices and disease) (Tanner, 2008). These aspects of dispossession are consistent with many of the experiences shared by residents of San Miguel Ixtahuacán. Study participants’ experiences of loss of livelihood, decision-making structures, inequity, environmental destruction, company/state silencing and consequently, a sense of resignation, powerlessness, vulnerability and uncertainty may all

point to experiences of colonial trauma. Reports by local residents implicate local mining operations in generating, maintaining and exacerbating these colonial experiences and conditions.

Community Strengths and a Paradox of Resistance

A significant body of work has considered the role of Indigenous communities' resistance to large-scale mining in disrupting neoliberal hegemonic discourses, articulating a global vision for environmental health and affirming Indigenous sovereignty (Bargh, 2007; Holden et al., 2011; Mackenzie & Dalby, 2003). This study and other research suggests that by pushing for increased protection of local environments, respect for unique cultures, community control and increased participation and representation among policies that affect them (Endres, 2009; Gordon & Webber, 2008; Sieder, 2011) resistance can contribute to community wellbeing. Study participants' roles in *defending our rights, defending our territory* as well as *speaking truth to power*, confirm the idea that community advocacy can contribute to wellbeing. Unfortunately, taking on this role also made those individuals engaged in these acts vulnerable to persecution and violent retaliation. Indeed, mining operations exploited local community resistance and divergent perspectives to promote further divisiveness, conflict and community susceptibilities.

Our findings also point to the importance of shared cultural identities and spiritual knowing as thematic areas of community strength and resistance. Previous literature has shown that multiple aspects of culture are *protective factors*, or, resources for resilience that can shield or buffer Indigenous populations from negative health threats (Denham, 2008; McIvor, Napoleon, & Dickie, 2009). Even beyond resilience, spirituality has also

been identified as important in building a cultural identity and sense of community (Richmond & Ross, 2008; Kingsley, Townsend, Phillips, & Aldous, 2009). Further, spirituality, along with traditional healing, food, and other activities, have been closely related to the relationship with the land among Indigenous populations (LaDuke, 2005; Wilson, 2003). Similarly, San Miguel residents reported that spirituality was important in maintaining a sense of community, promoting tranquility and sense-making in moments of crisis. Cultural expressions of identity were often articulated through a commitment to protect familial and community relationships to the land, ancestral knowledge and ways of life, and by engaging in environmental stewardship. As others have noted (Izquierdo, 2005; McIvor et al., 2009) although a connection to the land or *Mother Earth* has been identified as a key aspect of health for diverse Indigenous populations, the threat that resource extraction poses to community wellbeing has received little attention. While participants identified their culture, spirituality, and their relationship to *Mother Earth* as important sources of strength in facing the influence of mining operations, it was these same strengths that were profoundly threatened by the presence of the mining company. Thus, community resistance presented a wellness paradox; as key community health promoting mechanisms, erosion of these same strengths by local mining operations revealed sites of 'entry,' or vulnerability.

Resistance as a Decolonizing Project

These multiple acts of resistance or sources of strength identified by community members also reflected unique community perspectives and values that challenged normative neoliberal constructions of the world and championed Indigenous ways of knowing. Mayan cosmologies, including Mam thought, are premised around lived

assumptions of the universe in terms of centredness, balance, dialectical equilibrium, complementary elements, reciprocity and wholeness (a unified multiplicity, or unity through diversity) (Collins, 2005; M. Lopez, personal communication, October 10, 2011). These values were often expressed by participants in relation to culture, a Mam spirituality, and/or a Christian faith. This sense of relational inextricableness or unified wholeness in the world informed how participants saw themselves, in relation (or inseparable) from their neighbours, ancestors, wildlife, ecosystems, nature and humanity—a cohesive presence. A spiritual leader expressed some of these views in writing:

The navel is the connection to the mother and child. In our culture, the hills are sacred because they are the places that connect us to our Creator and Maker, where we feel we smell and taste more easily the presence of God . . . at great heights, we fill ourselves with God and recover our energy when we are sad or discouraged, as we also share the joys of who we are with all people atop hills and mountains.

Born of the corn

With this expression we start our singing of maize, the sacred myth of pop U'j; the woman's body and man is made of white and yellow corn symbolizing that we are strong but vulnerable people. This thought sparks memory in our people. Corn is the source of our life; that is why we celebrate corn because our food is our tortilla, our tamalito, our *atol*; it is our everyday life so we say that she is a mother nursing us. We dance with corn because it harmonizes us, we live with it, we eat together, work together, and we are renewed by it every day.

This *integral* cosmology often propelled a moral agency and embodied empathy towards community and environmental wellness. Further, it formulated a spiritual and ontological counterpoint to challenge taken-for-granted truths of large-scale mining as well as claims of the marketplace, ‘development,’ and commodification of the land.

According to Martinez-Alier (2002), current economic models are premised on a false claim of economic growth as a tool to address impoverishment. And, it is Indigenous populations and the global poor who are most disproportionately burdened by large-scale projects revealing an ‘ecological inequality.’ He argues that while Indigenous/campesino (peasant) peoples have protested mega-projects due to incommensurable values or divergent interests, ultimately, these acts of resistance are, at their core, a struggle for life and survival (Martinez-Alier, 2002).

Acts of resistance for community residents were similarly grounded in this urgency. Yet participants also articulated more ambitious or optimistic goals through their resistance. Among them: a revitalization and maintenance of their ancestral culture and spirituality; a restoration of community unity and wellbeing; recognition of their rights and a respect as Indigenous peoples; a collective or holistic vision of development and self-determination; an end to corporate impunity; and justice. Some have identified such activities as dimensions of Indigenous community resilience in which the aim is the maintenance of balance vis a vis socio-cultural and familial supports and networks within changing contexts (Kirmayer, Sehdev, Whitley, Dandaneau, & Issac, 2009). Further, some Indigenous scholars have pointed to many of these goals as key areas towards decolonization and emancipation (Alfred & Corntassel, 2005). Our study findings point

to role of these acts of resistance as vital and dynamic modes of community health and wellness seeking.

Conclusion

In summary, our findings illustrate the role of local mining operations in triggering the *social unraveling* of a community. Social unraveling was characterized by cumulative and expanding mechanisms of threat throughout the municipality. In this paper, we focused on two interconnected elements of social unraveling: a *climate of fear and discord* and *embodied expressions of distress*. Narratives of conflict and violence and a consequent climate of intimidation and fear were inseparable from concerns of social divisiveness, livelihood, mistrust and increased inequity. This reflected the *embedded* landscape of psychosocial challenges occasioned by local mining operations. These findings reinforce the need to apply ideas of interconnectedness, collectivity and local Indigenous ways of knowing in understanding experiences of wellbeing among Indigenous communities affected by mining operations. Further, the cautious use of Western constructions of psychological distress, the incorporation of local idioms and narratives of suffering are important to developing comprehensive health analyses of mining-affected communities' experiences. Particularly relevant to this population is the need to develop support strategies to address severe and *embodied* experiences of distress reported by afflicted residents. Given the politicized and structural nature of health threats, it appears that adequate mental health rehabilitation will require attention to cultural, social and political structures that have been eroded through a *climate of fear and discord*. Concepts such as historical trauma, self-determination, environmental justice and colonialism may be particularly useful to a nursing mandate that is more

responsive to the unique health challenges and priorities of this population. Our study pointed to areas of community strength and resistance through spiritual knowing and being, shared cultural identity, *defending our rights, defending our territory* and *speaking truth to power*. Of particular concern is that these same strengths were often threatened by local mining operations revealing new community vulnerabilities. By learning from the many strengths and acts of resistance that community members are engaged in, however, we will have the best chance of developing programs and support services that are timely and of utmost relevance to communities affected by mining.

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Figure 1: The tradition of our grandmothers



Figure 2: I tell my sons to grow corn. That is how we live.



Figure 3: Future generations



Figure 4: What gives us life.



Figure 5: Bearing witness “...so that they know how we live.”



Figure 6: "This is what takes away life."



Figure 7: "We celebrate together."



CHAPTER SIX

CONCLUSION

In this chapter, I will first present a summary of the central research findings. Then I will reflect on the issue of rigour as well as limitations of this research project. Finally, I will discuss the significance of this research for nursing scholarship followed by some final thoughts.

Thesis Overview

In this dissertation I have discussed both elements of the research process and research findings. In brief, Chapter Two presented the methodological tensions in attempting to carry out a collaborative research project within the sociopolitical context of a mining-affected community. In this introductory chapter, I also considered the relevance of an anti-colonial perspective in working with an Indigenous community for the purpose of authentic co-construction of research knowledge and processes. Chapter Three addressed the methodological opportunities and systemic barriers in carrying out an anti-colonial research approach informed by Indigenous knowledges. Here, I reflected on the importance of Indigenous knowledge systems in shaping and informing the research process. Further, I identified the ontological and epistemological contradictions that must be made visible when carrying out research with anti-colonial and emancipatory intentions. In Chapter Four, the macro-level findings characterized by intersecting oppressive forces of genocide, dispossession, gendered inequity, poverty, and a global context of oppression were presented. These systemic challenges intricately enabled and informed the influence of local mining operations, bringing new social inequities, challenges and threats. Chapter Five focused on community-level health

experiences of *social unraveling* (climate of fear and discord; embodied expressions of distress) and *community resistance*. As a whole, these chapters centre on methodological issues relevant to carrying out this work and unique elements of the research project findings. Collectively, they reveal cross-cutting themes and point to larger implications for nursing scholarship, education, practice and policy.

From a methodological perspective, my research with the community of San Miguel Ixtahuacán has illustrated the importance of iteration, transparency and a politicized perspective in understanding the everyday health challenges of local residents. By working to incorporate Indigenous knowledges and (re)thinking about strategies to build collaborative research spaces, I have sought to articulate an anti-colonial approach informed by Indigenous and Critical perspectives. This process has involved embracing the contradictory positions of privilege and oppression that shape my relationship with community members; developing community-informed protocols, inclusive participation and project credibility; and embracing a long-term vision towards meaningful change and action. While these strategies may seem like fairly obvious truisms, I have found that it is the enactment of these processes into unique, nuanced and complex local environments that challenges researchers to actively and critically engage in the research process. This process has involved: (1) (re)discovering my Mestizaje, considering the shared yet different histories of myself and local participants; (2) tracing the contours of difference and learning from unique knowledge systems and their ability to deconstruct taken-for-granted constructions (such as *development* and the notion of atomized parts versus holism); (3) and remaining vigilant and mindfully engaged in mechanisms of representation, including agency and victimhood, and the power of promises in carrying

out collaborative research. It is in these entanglements of theory, practice, research, action and *lived colonial contexts* where I have most been able to negotiate and contest research spaces. This process has included holding up a mirror to both my own privilege and the privileged space in which the research is carried out. Indigenous leaders, elders and community residents of San Miguel Ixtahuacán have profoundly transformed the research project. Through their guidance, I have worked to develop research processes respectful of community protocols, responsive to the health priorities of local residents, and informed by local knowledge systems. The analysis and action components of the research for example, reflect collective efforts of iteration and community planning. So much of what has developed from the research process has developed simultaneously with the building of trust and understanding among local residents. Ultimately, it is hoped that this thesis reflects the spirit of reciprocity and relational learning that have been so paramount in carrying it out.

Participants' stories revealed rich and poignant experiences as inextricable from systemic forces as from community-level contexts. *Intersecting experiences* as understood by Intersectional scholars have pointed to the interlocking nature of oppressive forces (Crenshaw, 2000; Knudsen, 2006). Through an anti-colonial lens, I was able to focus on both contemporary and historical colonial legacies in which these oppressive intersections were lived. In conversation with residents, it was evident that colonial histories and realities were of utmost relevance to their everyday health experiences. For participants, the presence of local mining operations represented a new colonial threat largely shaped by intersecting challenges and legacies of poverty,

genocide, gendered oppression and global inequity. These realities, in turn, shaped the everyday health of local residents.

The health challenges were neither contained nor exclusive to specific individuals. Rather, the influence of conflict, corporate coercion, divisiveness, and distrust since the arrival of the mine spread and transformed community life as a whole. Consequently, this *climate of fear and discord* and its impacts were widespread and expressed through community accounts of uncertainty, loss of community leadership, decreased engagement in community decision-making, social fragmentation, binge drinking, a lack of hope for the future, and a fear for basic safety. Inextricable from a climate of fear and discord, many community members also reported *embodied expressions of distress*. More specifically, participants described emotional, psychological, physical and spiritual suffering that was painful and debilitating. This *climate of fear and discord*, in conjunction with *embodied expressions of distress* revealed a larger community narrative of *social unraveling* in which both immediate and systemic contexts were *embedded* in local health experiences. Much like interwoven threads that make up a piece of fabric, each unique challenge revealed a tenuous interdependent aspect of collective well-being, that when weakened or strained, was felt in its totality (see figure 8).

This *social unraveling* or undoing of the social fabric of the community was also reflected in the paradox of community resistance. Local residents reported engaging in various acts of resistance that were fundamental for the health and well-being of their community. However, outspoken individuals with the courage and charisma to show leadership in *defending our rights, defending our territory or speaking truth to power*

were the most vulnerable to targeted persecution endangering their safety and well-being. In addition, shared spiritual and cultural ontologies, epistemologies and identities provided sources of strength and motivation in building healthy spaces and health promoting capacities among community members. Yet through their influence on cultural community structures and institutions, land-based economies, spiritual

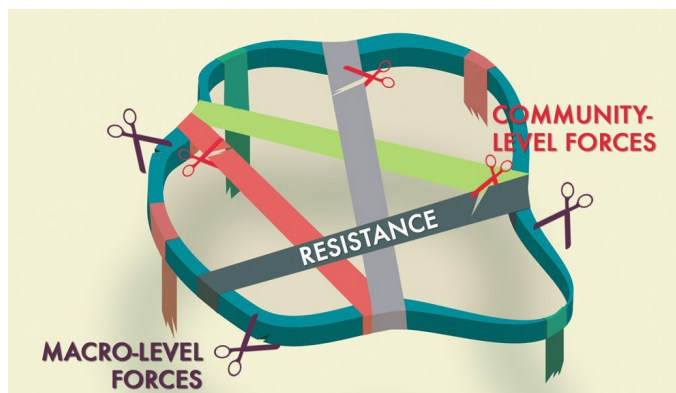


Figure 8: Macro and community-level forces in relation to community resistance.

practices, and the relationship to the land, it was these same community elements that were under threat by the presence of local mining operations. I have attempted to capture the complex relationship between systemic or *macro-level* findings (purple scissors), community-level findings (red scissors) and community strengths and resistance (represented by the inner ribbons) in the diagram above (see figure 8). This diagram illustrates the inseparable and layered contexts in which community members experienced health threats occasioned and exacerbated by local mining operations. The community has unique strengths and capacities that can promote well-being and serve as protective elements to various systemic and community-level threats. But, ultimately, oppressive intersecting contexts/histories and immediate experiences of violence, uncertainty and distress present an overwhelming challenge to the collective wellbeing and social fabric of the community. Resistance is never obsolete, but without addressing

the larger systemic factors, in many ways reflected in the presence and practices of local mining operations, the communities' well-being will continue to be under tremendous threat. These findings point to the need to be aware of the multi-faceted nature of threats as well as the strengths and resistance of mining-affected communities in order to adequately respond to their health needs and priorities.

Research Rigour and Limitations

An increasing number of researchers have advocated for standards of rigour that consider the creative, evocative and ethical impact of research projects in determining their relevance and value (Bochner, 2001; Finlay, 2006). Smith notes that an Indigenous-centred approach to research requires a commitment to privileging Indigenous voices and perspectives, recognizing and addressing political contexts and power inequities and working towards social and institutional change (2005). These aims are similar to what Lather has referred to as 'catalytic validity,' which can be defined as a measure of the extent to which the research inspires understanding and collectivization for positive social change (1991). Throughout all phases of the research, including conceptualization, implementation, and evaluation, decisions were made in partnership with the community in a manner that was congruent with Indigenous perspectives. The dissemination strategies were diverse and included more traditional scholarly papers and presentations, in conjunction with activities and actions that emerged from dialogue with community members. Particularly innovative, relevant, and effective was the Peoples' International Health Tribunal. The leadership for this event included community members, health professionals, political activists from Canada, the United States, Mexico, Honduras and various regions throughout Guatemala. Its success is evident not only in the immediate

benefit felt by community members and collaborators, but also, in its capacity to serve as a platform to build important networks for long-term action. Both community members and partner agencies have provided feedback as to the value of the event in promoting meaningful participation, increasing awareness and building a sense of solidarity. Of utmost importance has been the feedback of local people, among them women who have reported that giving their testimony in the health tribunal provided them an opportunity that they had never experienced before. Community leaders reported that in carrying out the health tribunal, many residents had expressed positively that I (Susana) had “kept my promise.” Many participants also expressed that group interviews provided them a space to support one another, get together and “a reason to leave the house.” These reports are indicators of research rigour because they reflect the reciprocal aspects of the research process, and the co-construction of spaces for meaningful participation, Indigenous voices and knowledge exchange.

While this research accomplished a great deal, several limitations must be noted. First, all interviews were carried out in Spanish, rather than in the local Indigenous language spoken by the community. While most participants were fairly fluent in Spanish, it was evident that for some individuals, language presented a barrier to full participation. This decision was a pragmatic one, as I do not speak Mam. However, several community leaders reported that regional variations in language, lack of trust and concerns about confidentiality would arise if formal translators were employed. To address this limitation, participants who were comfortable with Spanish assisted in translation and helped community members express themselves. This solution was not ideal. Community members without mastery of the Spanish language were less able to

fully participate, and were unable to ensure accurate interpretation of their accounts. In understanding the colonizing power of language, I encouraged participants to speak in their own language and to interrupt these Spanish-speaking spaces. As a result, audio-recorded interviews would often have a few two or three-minute intervals of recorded conversation solely in Mam. After some type of consensus or exchange of opinions was reached in Mam, a few participants would recap the conversation to me in Spanish. Specific testimonies and the health tribunal verdict were also presented in both Spanish and Mam. While this approach did not fully address the power imbalance that results from language imposition, I've attempted to be reflexive of this limitation and in incremental ways, to decentralize Spanish as the sole language of meaning-making.

Secondly, data collection was primarily carried out between the periods of August and November. The time between October and December are typically the period during which a large percentage of the community migrates to the southern parts of the country, or across the border to more northern countries for seasonal work. This migration presented a challenge for a few individuals wishing to participate in the project on an ongoing basis. Further, since more men than women travel for this type of work, the majority of the participants in our study were women. On the other hand, the backdrop of participants and family members leaving for weeks at a time to work elsewhere grounded the project in the lived health context of local residents. In addition, many local residents reported that some projects and institutions had historically excluded women as equal partners. Thus, our large representation of women in the study may reflect a research strength, a gender-inclusive process for participation. Nevertheless, as many participants expressed that the group interviews were a positive space for support, participants who

could not consistently participate due to work-related migration may not have been able to equally benefit from the research activities. It is also possible that some individuals did not participate because of their need to travel for work. As such, not fully addressing this barrier to participation for a sub-group of the population is an important limitation in terms of the substantive, logistical and participatory intents of the research project.

Indigenous ways of knowing require careful attention to the nuanced and dynamic local contexts in which Indigenous peoples live (Castellano, 2000; Martin, 2012). The nature and degree of knowledge co-construction, to what extent this process was accessible and relevant to community members, is an important criterion of rigour. Absolon and Willet (2005) suggest that “location equals contextual validation”. This notion refers to the degree to which the historical, colonial, epistemological, cultural and contemporary contexts of the research team and those who are ‘researched’ are considered throughout the research process. This intent demanded a commitment to reflecting on my privilege, background, experiences and assumptions as profound contexts that shape the research process. Throughout the project, I attempted to make my social locations visible to community members by speaking openly about my background, identity and privileges. Also, before the commencement of each interview session, I shared my research assumptions such that co-researchers could offer alternate viewpoints and use these discussions as a forum for the co- construction of knowledge. In addition, I organized group opportunities to engage in debate and dialogue with community members about aspects of the research process in order to develop research strategies considered relevant and appropriate to the community. I also participated in cultural activities such as community masses, celebrations, radio interviews and

workshops in order to more fully engage in the life of the community. My preconceived notions of culture, community life and health priorities were further informed and sometimes challenged through my participation in these spaces. For instance, previously, I had viewed spirituality as a phenomenon experienced through the individual and in the abstract. Yet I observed that community residents integrated their faith and spirituality into their everyday activities and that shaped how they were with one another. As such, it became evident that spiritual dimensions of wellbeing were indivisible from the communities' health priorities. These experiences also helped develop my own sense of identity and positionality as a Mestiza woman and displaced Guatemalan. The limited time period during which the dissertation was carried out, and my privilege as a Western-educated English/Spanish speaker with financial security has inevitably shaped the research process. Thus, I made a concerted effort to remain transparent about these privileged positions, and attuned to their influence on the research. Feeling changed and humbled by the research process and the building of relationships, contributed to a 're-imagining' of what counts as knowledge and research. Ultimately, the change that this research evoked was a reciprocal and co-constructive process felt by both participants and myself.

Significance to Nursing

Research with residents of San Miguel Ixtahuacán reinforces the importance of developing a nursing mandate responsive to the health threats and challenges experienced by mining-affected Indigenous communities. More broadly, it contributes to a nursing knowledge base focused on environmental aspects of health and well-being; the complex and intersecting nature of systemic health factors; and understanding social determinants

of health as experienced by diverse populations. While this research focused on the impact of the mining industry on community health it points to the need to examine the role of a variety of corporate and industrial factors in influencing the health and wellbeing of diverse communities. Due to the cross-cutting themes and transnational factors shaping the experiences of communities affected by large-scale industries, research working with Indigenous populations in the global North is of equal importance to research with communities in the global South. Canadian nurses will find that there are many local communities eager to develop alliances with health care professionals to address these issues. By employing an anti-colonial lens, this research focused on examining colonial mechanisms, incorporating Indigenous ways of knowing into the research process, and considering issues of self-determination and resistance. Lessons learned from this approach may help motivate new nursing approaches that are responsive and relevant to the priorities of unique Indigenous populations. Recommendations for different areas of nursing are discussed below.

Implications for Nursing Education

This research emphasizes the importance of the inclusion of critical pedagogical perspectives and a valuing of Indigenous knowledges to inform holistic and comprehensive approaches to health. From a methodological perspective, I have worked to illustrate the role of positionality, a context-based analysis, an anti-colonial lens and a flexible research process to inform both issues of participation and representation.

Developing curriculum for students to incorporate these same strategies into their clinical and community placements may help students to actively engage with clients, populations and stakeholders in authentic and transparent ways. Indigenous knowledges

may help students develop strengths-based approaches to health promotion, be vigilant of the role of colonial realities in shaping everyday health challenges, and further develop students' thinking beyond illness to incorporate preventative and salutogenic perspectives. In order to learn from Indigenous knowledges in a way that is respectful and appropriate, some schools have started to consult with local Indigenous knowledge holders in order to develop curriculum that is relevant to their communities' health priorities (Barton, S., Kent-Wilkinson, A., Kurtz, D., personal communication, 2013). Understanding the diversity of Indigenous peoples, while taking into account common socio-political and environmental challenges, may help students gain an appreciation for the wealth of expertise and difference among peoples while developing an awareness of the larger determinants of health impacting this population. These educational initiatives must include a critical analysis of more conventional transcultural approaches that tend to promote a superficial and stereotypical view of culture (Culley, 2006). Guiding principles of self-determination and sovereignty can help students understand Indigenous communities' value systems, spiritual beliefs and aspirations within the socio-political and historical landscapes in which they occur. Studying current political struggles faced by Indigenous peoples and how they are shaped by a colonial legacy, for instance, may help students develop a more profound sense of the health priorities of this population.

A growing group of scholars have advocated for a global health promotion strategy beyond the health services sector, transcendent of national borders, and fully encompassing the economic and environmental contexts that shape health experiences (Lee, 2007). This broader focus is necessary in order to address the health priorities of historically underserved populations who may not have much access to formal health

care, may be geographically isolated, and may be politically underrepresented in nation-state governance (Anderson, Rodney, Reimer-kirkham, Khan & Lynam, 2007). The findings from this study contribute to a growing body of health scholarship for those wishing to engage with these global structures and agents, largely transforming local everyday health experiences. This research can help inform a forward-looking profession of nursing open to new and expanding models of care that encompass these global health issues. Given the complexity of these issues, it will be of utmost importance to continue to develop pedagogical opportunities for interdisciplinary knowledge exchange. Most dialogue on interdisciplinary practice and education has focused on engaging with other health care disciplines (Hebert, Brandt, Armstead, Adams, Steck, 2009). Yet in a globalizing and inequitable world, future nursing students must also engage in meaningful partnerships with geographers, political scientists, social scientists and international lawyers. Educators can provide students with exposure to the benefits of a wide array of disciplinary perspectives by offering opportunities to participate in research projects with diverse disciplinary representation.

More broadly speaking, this research emphasizes the need for ongoing ethical engagement as to the meaning of partnership across borders and the politicized nature of knowledge development. At the moment, many nursing programs and Canadian universities continue to develop strategies to ‘internationalize,’ or to expand the global reach of their education programs. In reaching these global aims, it is imperative that nursing programs build pedagogical spaces that invite pluralism or ‘hybrid’ approaches to scholarship such that unique worldviews and values are not silenced by Eurocentric normativity. Otherwise, seemingly innocent global trips or projects may easily take on a

paternalistic tone that can be a disservice to students wishing to truly understand global health issues. In these contexts, international students, immigrant/refugee and Indigenous students have unique lived experiences or perspectives to enrich conversations towards pluralistic spaces cognizant of power and privilege. Ultimately however, the success of these placements hinges on the development of common aims and understandings with community leaders in a region who have the expertise and social license to plan projects in a way that is responsible and relevant to their fellow residents.

The forging of global partnerships is occurring within a climate of university budget cuts. In this context, many universities are looking to subsidize their budget through corporate donations. At Simon Fraser University, the University of Toronto, and York University, for instance, buildings have been named after prominent mining corporations or their CEOs, among them, Barrick Gold and Gold Corp. Both students and faculty members alike have expressed concern that these corporate sponsorships will lead to censorship or undue influence, ultimately threatening academic integrity. Given the tremendous influence that transnational mining companies may have on educational institutions, it is imperative that educators foster spaces for intellectual debate and questioning. If students are aware of the threats that large-scale mining can pose to community health, the felt presence of mining corporations in academic institutions may mobilize increased awareness and critical reflection instead of censorship or complacency.

Implications for Nursing Practice

Complex and cautionary approaches towards promoting and conceptualizing community mental health are needed. Western constructions of mental illness are inadequate in fully

understanding the scope and depth of hardships experienced by individuals. On the other hand, culturally-distinct or *local idioms of distress* have been under-studied, and in some cases, even romanticized which can contribute to the normalization of suffering (Glazer, Baer, Weller, Garcia de Alba & Liebowitz, 2004). Conventional Western approaches to treatment however, should not simply be discarded, as the symptoms described by individuals were varied and included experiences consistent with anxiety, panic, depression and post-traumatic stress. Often with debilitating consequences, these conditions may require a variety of treatment modalities. With the introduction of 25 “culture-bound syndromes” into the Diagnostic and Statistical Manual (DSM-IV-TR), some suggest that these conditions be treated concurrently with more “conventional” constructions of mental health suffering. Flaskerud, for instance, suggests that family involvement can guide care planning by identifying causes congruent with the clients’ worldview and the incorporation of culturally-nuanced terms consistent with an individuals’ evaluation of their affliction (2009). In order for nurses to develop these partnerships with their clients however, they must have a baseline awareness of the social, spiritual and cultural nature of mental health constructions and the social/community relations in shaping these realities. As these *idioms of distress* or “culture-bound syndromes” have remained at the periphery of mental health discourses, such as in the glossary of diagnostic manuals such as DSM-V-TR (Flaskerud, 2009), the first step must be to educate health care professionals about the complex and culturally-informed contexts of mental health conditions generally. Ultimately, communities themselves are ideal resources to prepare nurses in developing culturally-relevant mental health care. In developing community mental health interventions that are adequately

comprehensive, relevant and respectful, initiatives must be carried out under the direction of community leaders. For instance, a community-run discussion identifying some of the most common concerns and/or symptoms faced by residents, may be an ideal place to start developing a mental health program of the most impact and relevance.

In the community of San Miguel Ixtahuacán as in other regions of Central America, *susto*, and other conditions that encompass both physical, emotional and spiritual dimensions of suffering continue to be important expressions of distress. Further, legacies of colonialism, violence, and material realities profoundly inform the health status of communities. Thus, in developing mental health programming with Indigenous populations with similar lived contexts, practitioners should consider embodiment, the larger socio-political environment as well as colonial forces shaping health. Although colonial trauma is still a fairly new concept that could benefit from further scholarly exploration, it may provide a useful framework for health care workers to address the multi-faceted nature of suffering among diverse Indigenous communities.

Of particular relevance to mining-affected communities, health-promoting strategies should reflect a sense of the crosscutting impact that mining operations can have on the health and well-being of local populations. Narrow understandings about health and health promotion may not be appropriate for communities dealing with a broad range of issues. For instance, an individual may explain his/her suffering in terms of food security, safety and community divisiveness. Or, increased reports of alcoholism may be deeply connected to a loss of land and increased economic inequity in the region. Thus, health interventions must involve long-term planning with community members in such a way that includes community members' health priorities and analysis of the problem. Further,

health programs will benefit from building on the many health strengths and sources of resistance already present in the community. In the long-term, health projects in these contexts are best suited when developed and implemented in partnership with a robust interdisciplinary team. Local organizations with a long history in the region are also crucial collaborators in the development of a sustainable health program in which community members understand and agree with the scope of the project. Working within existing cultural institutions may also help enhance possibilities for follow-up and sustainability. These institutional alliances are particularly important if projects funds/resources are limited and when working with Indigenous mining-affected communities that are typically underserved, susceptible to boom and bust cycles and economically marginalized.

Implications for Nursing Research

This research has important implications in developing collaborative programs of research. In building research partnerships, there is a need to be aware of the context shaping participants' lives, and, consequently, how these contexts shape spaces in which research is carried out. This requires an understanding of social positions as sites of privilege, but also spaces of overlapping oppression that can motivate investigators to find common ground with communities. Further, it requires breaking the dichotomous construction of agency and victimhood, and a naming of privileged knowledge systems that can silence alternative perspectives and long-standing Indigenous ways of knowing. These issues centre around a goal of reciprocity – in terms of knowledge construction, commitment to action, and research design. Logically, then, community leaders must be part of research planning as early as possible. Field researchers must also contribute to

the development of tangible proposals that can ensure community benefit. This type of continuous planning requires a high degree of fluidity and flexibility if it is to be truly collaborative. Academic committees, university ethics protocols and funding bodies that can anticipate the demands of such projects may be integral to their success.

More research is needed to examine and begin to address the various health challenges experienced by mining-affected communities. This study examined community strengths and community resistance as key aspects of community well-being. Findings revealed that acts of community resistance were paradoxically characterized by increased risk and vulnerability. It is thus important to examine consequences or corporate/nation-state responses to these acts of resistance. In this way, nurses can identify both threats and capacities necessary for the development of grass-roots health promotion initiatives in mining-affected-communities. Given the complexity of threats posed by large-scale mining operations, health research that contemplates concurrent social reparation and mental health support while building on existing community strengths may be of particular relevance to this population. More broadly speaking, this approach may be beneficial in developing research partnerships with communities affected by other large-scale industries or mega-projects as, most likely, they will similarly face drastic changes to their local economies, environments and socio-cultural structures.

This research also raises questions as to how the status of the natural environment should inform nursing scholarship. Although *environment* has often been identified as a central concept to nursing, it continues to be under-theorized, and minimally incorporated into nursing practice (Laustsen, 2006). A study examining the health of an industry-

impacted community in the United States (Shriver & Webb, 2009) for example, reported that despite visible air pollution in the region, assessment of individuals who presented with respiratory problems focused on their history of smoking. Likewise, issues of food security, water quality, seismic activity, and pollution have received minimal attention from nurses in both clinical and academic settings. Given the federal administration's current focus on natural resource extraction, an escalated rate of climate change and a collective Indigenous movement for recognition of land rights and self-determination, environmental justice is a growing concern for communities worldwide. As such, environmental justice must be an area of focus for nurse scholars. Nurses' interest in developing interdisciplinary programs of research, upstream health promotion strategies, and collaborative partnerships with diverse populations puts them in an ideal position to address these issues.

The findings from this research also emphasize the importance of politicized and embedded understandings of health experiences. Decontextualized analyses that lack attention to social and historical realities including the legacies of colonialism, yield only partial understandings. The findings of this research support the need for nurse scholars to generate knowledge that takes into account the multiple, complex, and intersecting realities in an analysis that is highly contextualized, deeply nuanced, and profoundly political. Pursuing a more focused analysis of specific dimensions of these socio-political pathways may also yield rich understandings of how to best support the health of mining-affected communities. For example, examining the influence of poverty in perpetuating mining-induced displacement and food insecurity, or gendered inequity in generating household-level inequity and gendered violence in mining towns, may provide further

insight into the health promotion needs of this population. These studies may also build supportive spaces for residents to begin to dialogue and mobilize around these issues. A collaborative, participatory research design may be most effective at supporting this momentum.

It is imperative that nurses contribute to a global analysis of the health issues facing diverse populations. By examining the role of corporate global actors beyond nation-state boundaries nurses can develop more comprehensive understandings of the potential health impacts of large-scale mining on communities. This approach may include an examination of the influence of neoliberalism and free trade agreements in influencing economic activities and health experiences among diverse populations. Further, nurses must look to broaden their analysis to consider how large-scale projects are experienced differently by Indigenous populations in the global North and in the global South. Learning from the experiences of First Nations communities impacted by large-scale mining locally and mining-displaced populations resettled in the North may help build spaces for cultural exchange that can contribute to a global analysis of large-scale mining. Given that Indigenous populations are uniquely and disproportionately affected by large-scale mining, nurses must consider the Indigeneity of mining-affected communities, whether displaced or not, in shaping their health experiences.

Implications for Policy

Research findings emphasized the continued need to examine socio-political forces shaping the health of mining-affected communities. Community members consistently illustrated the interplay of local mining operations with political realities, ultimately impacting community health. Governance issues that influenced the health

experiences of local residents were similar to concerns expressed in other mining-affected regions (Munarriz, 2008; Szablowski, 2002; Ahmad & Lahiri-Dutt, 2006). Key issues relate to a lack of free prior and informed consent (FPIC); misinformation, manipulative tactics/bribery; inadequate closure/reparation plans; insufficient environmental regulation and monitoring; the underrepresentation of women in land sales, and; the criminalization of individuals involved in the resistance.

If nurses wish to support the health of this population at the global level, they must advocate for the recognition of, and adherence to, existing laws that support the rights of this population. International resolutions such as the United Nations Declaration on the Rights of Indigenous Peoples and the legally-binding International Labour Organization Convention 169, for example, recognize Indigenous peoples' rights to determine what type of development occurs on their territory. These instruments also emphasize the need for FPIC before any economic project is initiated. Moreover, nurses must be vigilant of liberalizing and/or deregulatory mechanisms that impact the environmental health and safety of local communities. Legislation that can ensure a higher level of accountability to encourage better corporate behavior at home and abroad may also play a role in safeguarding the well-being of mining-affected communities. One example of such legislation is defeated private members' Bill C-300. This bill would have divested public funds from transnational companies if found to be violating human rights, motivating corporations to be more socially responsible. A new piece of legislation, Bill C-323, proposed by New Democratic Party members of parliament, may help local communities seeking legal channels for justice so that they can take Canadian-based companies to court in Canada. According to legal experts (Dirmeitis, 2011), this legislation is

important because poor countries often lack the judicial infrastructure or political safety necessary to fairly carry out trials examining the behavior of transnational companies locally. By advocating for regulatory mechanisms to ensure corporate accountability, nurses can work towards protecting the rights and well-being of some of the most marginalized populations worldwide. By supporting legislation that allows communities increased access to the Canadian legal system in cases where Canadian operations are acting irresponsibly, nurses can help mining-affected communities' in their struggle for justice.

As public figures, nurses can also engage the Canadian public on the complicity of our governments and other public institutions in facilitating corporate injustices and environmentally unsustainable projects. Nurses can question the increasing focus on the extractive industry of the current federal administration given risk it poses to local communities' economy as the price of raw materials fluctuates. In many regions of Canada, this phenomenon has already led to a high level of economic uncertainty. Nurses may also want to develop strategies to divest from corporate actors known for human rights violations given that their pension funds are invested in mining companies such as Goldcorp. Or, nurses may want to critically engage with the government in questioning the use of public money and foreign aid programs in subsidizing the extractive industry's philanthropy. MiningWatch has argued that these public/private partnerships (that is, NGO and mining company) are in essence, contradictory, as the presence of mining operations is often at odds with the mandate of non-governmental organizations. Many analysts have concluded that charitable organizations such as Development and Peace and KAIROS have lost their funding, in part, due to their critical analysis of the

extractive industry (Barry-Shaw & Jay, 2012). Nurses must be ready to challenge policies that are not in the best interest of the general public and that may endanger the health of communities worldwide.

In order for the nursing profession to engage in policy issues relevant to mining-affected communities in an effective and sustained manner however, nurses need the support of their professional organizations and regulatory bodies. A step towards building this organizational support may include developing nursing codes of conduct that identify social advocacy and health equity reform as key nursing competencies, not simply ‘optional’ or peripheral aspects of nursing care (Falk-Rafael & Bettler, 2012). Nurses may be more effective if they can collectivize their efforts by identifying guiding principles in collaboration with institutions with shared interests. The Registered Nurses Association of Ontario (RNAO) for example, has identified the environmental determinants of health as an area of focus noting that “evidence in both Canada and elsewhere shows that these impacts [pollutants] are disproportionately borne by those with the lowest incomes, particularly Aboriginal and racialized people” (para. 2). Noting that environmental contamination is not just a health issue but also a social justice and equity issue, RNAO also recommends that “when an activity threatens harm to human or environmental health, precautionary measures must be taken even if a conclusive cause and effect relationship has not been fully established scientifically” (RNAO, 2012, para. 3).

Final Thoughts

Working with the community of San Miguel Ixtahuacán revealed both important insights in terms of process and overall research findings. An anti-colonial collaborative

research partnership served as an important guide in order to develop strategies for co-construction, reciprocity, and a reflexive commitment to action and change. The research findings revealed complex and intersecting socio-political realities that are indivisible from the influence of local mining operations on the health of the community. At the community level, the multi-faceted threats that mining operations posed to health and well-being were characterized by a collective sense of *social unraveling* experienced through an everyday *climate of fear and discord* and acute suffering described as *embodied expressions of distress*. The community manifested a diversity of strengths enacted in acts of spiritual, ontological, intellectual, political, and cultural resistance. The high degree of collective suffering in the region however, points to the need for both immediate and long-term strategies to support the health of this community. It is of utmost urgency for nurses to work in solidarity with mining-affected community members to develop increased awareness about the threats that large-scale mining poses to the health of communities. Through various areas of nursing scholarship and advocacy, nurses must work across borders and sectors to develop a vision that champions global accountability for health equity and justice.

The Peoples International Health Tribunal, an initiative sparked by this participatory research project, aimed to develop an international public forum to denounce the injustices and threats that residents had experienced as a result of Goldcorp's operations. Along with delegations from Mexico, Honduras and Guatemala, Health care practitioners, academics, scientists, lawyers and journalists convened to put Goldcorp "on trial." The concerns of communities affected by Goldcorp throughout

Mesoamerica are reflected in the health tribunal verdict. On July 15, 2012, the judges pronounced:

For the reasons above described, we find Goldcorp guilty for its activities in Honduras, Guatemala and Mexico, which we find to be seriously damaging to the health and the quality of life, the quality of environment, and the right to self-determination of the affected Indigenous and campesino communities.

Additionally the judges recommended:

Of the States (national, departmental, state and municipal governments,) **we demand:**

- Compliance with existing national legislation and international agreements, in particular those that guarantee the right to free, prior and informed consent.
- Creation of new regulations to protect and guarantee the rights of communities who are confronting mining and all activities that affect their well-being.
- Emphatically ensure the respect for and enjoyment of the rights of Indigenous peoples, recognizing their own traditions, cultures and decision-making.
- Adopting measures similar to the restrictions on open-pit metallic mining decreed by the authorities of other countries.

Of Goldcorp **we demand:**

- Reparations of the damages to the health of the population, the damages to the environment, and in general damages to the affected Indigenous and peasant communities.

- Compensation for past, present and future damages to the communities, taking in consideration that contamination is ongoing and can continue still for hundreds of years.
- Suspension of all mining operations in Mesoamerica and guarantees that it will not repeat the experiences described in the accusations herein.

My hope is that nurses, much like corporate and legislative global actors, will be motivated to act upon these demands in such a way that enables mining-affected populations to obtain justice, ensure their safety, and build strong and healthy communities.

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APPENDIX A: Ethics Approval Forms



Use of Human Participants - Ethics Approval Notice

Principal Investigator: Dr. Helene Berman
 Review Number: 178808
 Review Level: Full Board
 Approved Local Adult Participants: 80
 Approved Local Minor Participants: 0
 Protocol Title: Violence and Resistance: A Global Analysis of the Health of Two Mining-Affected Indigenous Communities, the Ardoch Algonquin First Nations and Mam Mayan peoples of San Miguel Ixtahuacan
 Department & Institution: Faculty of Education, University of Western Ontario
 Sponsor: Canadian Institutes of Health Research

Ethics Approval Date: June 16, 2011

Expiry Date: December 31, 2013

Documents Reviewed & Approved & Documents Received for Information:

Document Name	Comments	Version Date
UWO Protocol		
Letter of Information & Consent		
Letter of Information & Consent		
Advertisement		
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Letter of Information & Consent	These being photographed	

This is to notify you that The University of Western Ontario Research Ethics Board for Non-Medical Research Involving Human Subjects (NMREB) which is organized and operates according to the Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans and the applicable laws and regulations of Ontario has granted approval to the above named research study on the approval date noted above.

This approval shall remain valid until the expiry date noted above assuming timely and acceptable responses to the NMREB's periodic requests for surveillance and monitoring information. If you require an updated approval notice prior to that time you must request it using the UWO Updated Approval Request Form.

Members of the NMREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussions related to, nor vote on, such studies when they are presented to the NMREB.

The Chair of the NMREB is Dr. Riley Hinson. The UWO NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

Signature:

Ethics Officer to Contact for Further Information

<input checked="" type="checkbox"/> Grace Kelly	<input type="checkbox"/> Janice Sutherland
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This is an official document. Please retain the original in your files.



Use of Human Participants - Ethics Approval Notice

Principal Investigator: Dr. Helene Berman
 Review Number: 178809
 Review Level: Delegated
 Approved Local Adult Participants: 80
 Approved Local Minor Participants: 0
 Protocol Title: Violence and Resistance: A Global Analysis of Mining-Affected Indigenous Communities
 Department & Institution: Education/Faculty of Education, University of Western Ontario
 Sponsor: Canadian Institutes of Health Research

Ethics Approval Date: March 02, 2012 Expiry Date: December 31, 2013

Documents Reviewed & Approved & Documents Received for Information:

Document Name	Comments	Version Date
Revised UWO Protocol	The title of the study has been revised, along with eligibility of participants, study methods and participant recruitment.	
Letter of Information		

This is to notify you that The University of Western Ontario Research Ethics Board for Non-Medical Research Involving Human Subjects (NMREB) which is organized and operates according to the Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans and the applicable laws and regulations of Ontario has granted approval to the above referenced revision(s) or amendment(s) on the approval date noted above.

This approval shall remain valid until the expiry date noted above assuming timely and acceptable responses to the NMREB's periodic requests for surveillance and monitoring information.

Members of the NMREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussions related to, nor vote on, such studies when they are presented to the NMREB.

The Chair of the NMREB is Dr. Riley Hinson. The UWO NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.


 Signature

Ethics Officer to Contact for Further Information

Kathleen Kelly	Janice Sutherland
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This is an official document. Please retain the original in your files.

APPENDIX B: Interview Guide

Grand tour questions were open-ended questions that served to initiate the conversation and included:

- I am interested in how the entrance of [mining company] into your community has affected your life. Could you tell me about this?
- Can you tell me about [individual's/group's community]? What are some of the challenges faced by [individual's/group's community]?
- Can you tell me what being healthy means to you?
- Can you tell me about a time that you felt healthy? Can you tell me about what makes your community healthy?
- Can you tell me about what makes your community feel safe? Not safe?
- Can you tell me about being Mam Mayan in Guatemala?

The use of probes encouraged participants to elaborate on issues they raised or experiences they shared and included:

- How is this different from before the mining company was present?
- What was your reaction? What was the community's reaction?
- Who do you think is responsible? What would you like to see changed?
- How is the current mining operation related to your history as a people?
- What do you feel is the federal governments' responsibilities to your community?
- What do you feel is the mining company's responsibility to your community?
- How do you feel that being Indigenous shapes your experiences?
- What do you see as the relationship between the mining operation and your community's well being?
- What makes you feel proud of [individual's/group's community]?

APPENDIX C: Letter of Information and Consent form



Letter of Information for Participants (San Miguel Ixtahuacán)

Research project: Violence and Resistance: the health of the Mam Mayan peoples of San Miguel Ixtahuacán

Study investigator: C. Susana Caxaj, RN, BScN, Doctoral candidate

Supervisor: Dr. Helene Berman, RN, PhD

Purpose of the Study

This letter will provide you with information about this research study so that you can make an informed decision as to whether you would like to participate. My name is Susana. I am a doctoral nursing student at the University of Western Ontario. I am interested in examining the impact of Canadian mining on the health of your community. Specifically, I am interested in hearing about how you feel that living in a mining-affected community impacts your health. Also, I would like to know about the strengths of your community and activities that you do to support your wellbeing. For the purpose of this study, these activities are considered forms of resistance. We believe that your insight and perspective will help us better understand how to support communities whose lives are influenced by mining.

What will I be asked to do?

Participants from your community will be asked to meet individually with the study researcher, or in groups of 2 – 10 people to discuss their health experiences and how they relate to recent mining activities on their homelands. If you agree to participate, you will be asked questions about your sense of safety, emotional wellbeing, and health challenges, as well as how you have managed or responded to any health threats since the arrival of mining operations in your community. These meetings will occur 2-3 times over a three-month period, and range from 1 to 2 hours in each session. These sessions will be audio-recorded and notes will be taken only with your permission. The meeting will take place at a location that you choose – some place where you feel comfortable to conduct the interview. This may include a quiet room in a community centre or your personal home. For the purposes of this research, participation will be restricted to individuals 18 years of age or older.

If you would like to participate in other aspects of the research project beyond the initial interview, you may do so. However this is completely up to you and is not a requirement for taking part in the study. This will include data analysis – or helping the researcher understand the meanings of the interviews - and deciding where and how to share research findings publically. You will decide upon the frequency and duration of these sessions. You will also be able to withdraw your participation or your consent at any given point in time.

How will I be supported?

It is possible that some questions may make you feel sad or uncomfortable. If this were to happen, please tell the interviewer and she can discuss these feelings with you, stop the interview if you would like, and/or refer you to appropriate services that can provide you with the support you are looking for. A list of resources will be made through consultation with your community before the initiation of the study to ensure that they are culturally relevant to your community. Formal support meetings will also

be established if you and other fellow participants wish to do so. The purpose of these meetings will be to debrief, raise concerns, worries and/or feedback to ensure that the research is respectful and sensitive to your needs.

This study may help you feel supported by providing a space where you can talk about your experiences and are listened to. These conversations and reflections may also help you develop a greater understanding of how mining impacts the health of your community. Participation in the research study will also provide an opportunity for you to gain experience conducting health research. Also, it may support you and your community members' efforts for increased awareness of the challenges faced by your community and others in similar situations.

What if I feel unsafe?

It is also possible that your participation may decrease your sense of safety in your community. Many precautions can be taken to ensure that you feel as safe as possible. First, you may choose to participate only privately, either by having a one-on-one session with the researcher, or by conducting interviews over the phone. Second, assistance with transportation as well as coordinated accompaniment with human rights organizations can also be arranged for you. If you wish to do so, partner organizations will be provided with your interview times and location to be able to respond in emergency situations. I will also provide you with a local phone number where you can reach me. I will check in with you often to make sure that you feel comfortable continuing in the study. You can withdraw from the study at any time. You are under no obligation to continue your participation if you do not wish to do so.

Do I have to participate?

No. Participation in this study is purely voluntary and your decision alone to make. You may refuse to participate, refuse to answer any questions or withdraw from the study at any time with no effect on your future (care/ academic status/ employment etc).

How will my privacy be protected?

If you withdraw from the study, any information collected so far can be removed if you want. Otherwise, all research data collected will be kept on data-encrypted USBs (electronic data storage devices) in a locked cabinet and no personal identifying information will be collected in order to protect your privacy and anonymity. This data will be destroyed after five years time. Any publications or presentations arising from this study will not include your name or any identifying information unless you give your explicit permission.

Stories and information that you share will not have any identifying information or your name unless you wish it to be documented in this way. No information shared in research meetings will be shared with anyone outside of the research team without your explicit permission.

How will I know what happened?

Participants and interested community members will be invited to participate in regular public meetings to receive updates on how the research is coming along. A written summary of the research findings can also be mailed to you if you choose.

Will I be compensated?

A \$7.00 (60 Q.) monthly honorarium for three months will be given to you in appreciation for your time and contributions to this research. This amount will be given to you at the start of each month,

even if you change your mind and decide not to continue to participate in the study.

Are there any costs to participating?

Some financial and logistical support is available for individuals requiring help with transportation. While I will strive to make the research environment a child-friendly space, additional child-care costs may result from your participation in this study.

Do you have any questions?

If you have any questions about this study or your treatment please contact Susana (study researcher) at XXXXXXXX or [XXXXXX](#). or Dr. Berman (research supervisor) at XXXXXX or [XXXXXX](#). If you have questions about your rights as a research subject you may contact: The Office of Research Ethics, The University of Western Ontario XXXXXXXX

Violence and Resistance: Violence and Resistance: the health of the Mam Mayan peoples of San Miguel Ixtahuacán.

Would you like to participate?

If you would like to consent to this research, please read below.

I have read the Letter of Information, have had the nature of the study explained to me and I agree to participate. All questions have been answered to my satisfaction.

Research Participant Name

Date

Research Participant Signature

Person responsible for signature

Date

APPENDIX D: Curriculum Vitae

- Education:** Queen's University, BScN
Kingston, Ontario, Canada
2003 – 2007
- Western University, PhD (fast-track)
London, Ontario, Canada
2007 – 2013
- Scholarly Awards
& Project Grants:** Canadian Vanier Graduate Scholarship (\$150,000)
2011 – 2013
- Ontario Graduate Scholarship (\$10,000)
(Declined for Canadian Vanier Scholarship)
- Fund for Global Human Rights (\$30,000)
January 2012 – June 2012
- Joseph and Vera Byrne 125th Anniversary Alumni Award (\$4,000)
September 2008
- Graduate Student Conference Travel Award (Health Sciences)
Fall 2008; Fall 2010; Fall 2011
- Related
Experience:** Undergrad Research Placement Supervisor (2011 - 2012)
- Research Assistant, Lives of Girls Project (2008 – 2010)
- Teaching Assistant, Western University (2008 – 2010)
- Publications:**
Caxaj, C. S. & Berman, H. (2010). Belonging Among Newcomer Youths: Intersecting

Experiences of Inclusion and Exclusion. *Advances in Nursing Science*, 33 (4), 17 – 30.

Caxaj, C. S., Berman, H., Varcoe, C., Ray, S. L. & Restoule, J. P. (2012). Tensions in Anti-Colonial Research: Lessons from Collaborating with a Mining-Affected Indigenous Community. *Canadian Journal of Nursing Research*, 44 (4), 76-95.

Caxaj, C. S., Berman, H. (in press). Anti-Colonial Pedagogy and Praxis: unraveling dilemmas and dichotomies. In Anderson, Kagan, Smith and Chinn. *Philosophies and practices of emancipatory nursing: social justice as praxis*.

Caxaj, C. S., Berman, H., Restoule, J. P., Ray, S. L. & Varcoe, C. (in press). Promises of Peace and Development: Mining and Violence in Guatemala. *Advances in Nursing Science*.