

Commentary

Using the Biopsychosocial Framework to Address the Ongoing Impacts of the Indian Residential School System and Colonization in Canadian Health Care Systems

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Abstract

Traumatic experiences during childhood can have significant, detrimental impacts on physical and mental health and negatively impact social functioning in adulthood. Such an understanding is imperative to providing adequate and well-informed health care to Indigenous populations residing on the land now called Canada. The Indian Residential School (IRS) system, which was in operation for over one hundred years, was one of the most violent colonial tactics implemented by Canada's federal government. This system was conceptualized to forcibly alienate Indigenous children from their families, communities, and culture to eradicate Indigenous culture and identity. Combined with witnessing violent acts perpetrated by colonizers against members of their community, the shared experience of being abducted from their families, and suffering physical, mental, emotional, and sexual abuse, led to widespread trauma amongst Indigenous people for generations. It is expected that such trauma has resulted in disruptions in attachment, social functioning and emotional development in individuals who survived the Indian Residential School system, thus potentially triggering a cascade of maladaptive, trauma-related behaviours through subsequent generations (termed intergenerational trauma). These writers recommend that healthcare providers consult a biopsychological framework when engaging with Indigenous individuals, especially Indian Residential School survivors and their relatives, as it emphasizes the multidirectional relationship between psychological, biological, and experiential factors implicated in an individual's well-being. Furthermore, such a framework may aid in contextualizing an individual's unique challenges within the broader scope of colonization.

Keywords: Residential schools; Trauma: Generations; Indigenous health; Social; Attachment

It is well-known within the clinical field that adverse childhood experiences are strong predictors of poor health and social functioning in adulthood (Boles, 2021; Cabral & Patel, 2020; Cassidy & Shaver, 2018; Kwong & Hayes, 2017;

Lackova Rebicova et al., 2019; Ladd et al., 2000; McQuaid et al., 2022; Richmond et al., 2009; White et al., 2017). Severe experiences such as trauma, maltreatment, and loss have been associated with conditions such as anxiety,



depression, substance use, suicidal ideation, violence, unemployment, and maladaptive attachment styles (Asselmann et al., 2018; Cohen et al., 2012; Hovens et al., 2015; Juruena et al., 2020; Lo et al., 2019; Nelson et al., 2020; Rojo-Wissar et al., 2021; Sege & Amaya-Jackson, 2019). Unfortunately, many of these difficulties, both during childhood and adulthood respectively, have been observed among Indigenous populations (Bombay et al., 2019; Frohlich et al., 2006; Kirmayer & Valaskakis, 2009; MacMillan et al., 1996; McNamara et al., 2018; Oliver et al., 2012; Paradies, 2006; & Cunningham, Paradies 2012; Commission on Aboriginal Peoples [RCAP], 1996; Shepherd, Li, & Zubrick, 2012; Shepherd et al., 2012; Walls & Whitbeck, 2012a, 2012b). Furthermore, there is substantial evidence to indicate that the socio-historical conditions imposed on Indigenous people, such as the imprisonment of Indigenous children in Indian residential schools (IRS), are substantial—if not the original—catalysts for these issues (Bombay et al., 2011, 2014b).

Indigenous populations living in Canada and other colonial countries have poorer health and social outcomes compared to their white counterparts (Bombay et al., 2018; 2019; Frohlich et al., 2006; MacMillan et al., 1996; Oliver et al., 2012; Paradies & Cunningham, 2012; Shepherd, Li, & Zubrick, 2012; Shepherd et al., 2012; RCAP, 1996; Wallace et al., 2003). For example, Indigenous Peoples living in Canada, the United States, and Australia often report more intense and frequent experiences of psychological health difficulties (e.g., anxiety, depression) than people of European descent living in the same countries (Bombay et al., 2014a, 2014b; Davison et al., 2017; Davison et al., 2019; Kirmayer & Valaskakis, 2009; McNamara et al., 2018; Paradies & Cunningham, 2012; Walls & Whitbeck, 2012a, 2012b). In addition, many Indigenous populations in Canada and elsewhere face various economic adversities (e.g., poverty, food insecurity; Hajizadeh et al., 2019; Shepherd, Li, & Zubrick, 2012; Shepherd et al., 2012), and there is

evidence to indicate that **Indigenous** populations also face more social stressors (e.g., racism, bullying, aggression) that are expected to lead to or reinforce perceived social rejection and lead to frequent and intense health difficulties (Allan & Smylie, 2015; Berger et al., 2017; Broll et al., 2018; Crengle et al., 2012; Dunlop, 2016; Lemstra et al., 2011; Loppie et al., 2014; Ma et al., 2019; Melander et al., 2013; Patrick & Budach, 2014; The Truth and Reconciliation Commission of Canada [TRC], 2015a; Whitbeck, 2011; Zubrick et al., 2010).

The health disparities present between Indigenous people and white citizens of colonial countries indicate that a more holistic and context-specific model of care is needed. These intersecting social, historical, and colonial factors must be considered when supporting Indigenous people in a clinical setting, and the adoption of the biopsychosocial (BPS) framework is strongly recommended as a model of care for Indigenous populations, given their unique socio-historical experiences.

The Biopsychosocial Framework

The BPS model of care is a multi-level, integrative approach to clinical care. First coined in 1977 by George Engel, the BPS model was developed as a solution to the limits of the biological model that had dominated much of the Western¹ medical practice until this point (Álvarez et al., 2012; Engel, 1977). The BPS framework acknowledges illness as being the manifestation of forces originating in the body and mind as well as on interpersonal and environmental levels (Engel, 1977). Factors present at each of these levels are considered to be essential components of a system that contributes to specific aspects of physical and psychological disease (Engel, 1977). This framework was developed to respond to previously normalized dehumanizing aspects of care, such as the separation of the body and mind, and reductionistic and materialistic aspects of medical thinking, which result in only the observable and verifiable components of

and colonial perspectives and values, the most flawed of which are inherently racist, sexist, and classist.

¹ The term Western medical practice refers to a system founded on and continually upholding both Eurocentric



disease being considered while ignoring anything else. Such an approach devalues and ignores the human and subjective—although still genuine—aspect of suffering, as well as external pressures (such as those arising from socio-economic, racial, and political marginalization) that may exacerbate such suffering (Álvarez et al., 2012).

Suggesting implementing something resembling a BPS model of care, specifically for marginalized groups, is not new. In fact, following the introduction of Engel's BPS model, the biopsychosocial model of perceived racism has become prevalent in assessing the wellbeing of primarily African American and Latinx populations concerning their subjective experiences of racism and marginalization and the resulting psychological distress (Clark et al., 1999; Pieterse & Powell; 2016; Walters, 2004). Furthermore, traditional Indigenous wellness systems such as the medicine wheel greatly resemble the BPS approach to health care. The medicine wheel emphasizes the importance of the interplay between aspects of one's emotional, psychological, physical, and spiritual well-being, in addition to seeing these four factors as equally important determinants of overall health (Dapice, 2006). Implementing such culturally specific models of care has also been shown to greatly benefit Indigenous people and other racial and ethnic groups (Fijal & Beagan, 2019; Gamby et al., 2021; Lawrence & James, 2019; Shema, 2022). Indeed, the teachings of the BPS framework and approaches like it may be the most effective in equipping practitioners treating Indigenous people, a population in a constant state of recovery from historical, political, and social violence that in turn has resulted in unique and often disheartening health outcomes (Bombay et al., 2019; Frohlich et al., 2006; MacMillan et al., 1996; Oliver et al., 2012; Paradies & Cunningham, 2012; Shepherd, Li, & Zubrick, 2012; Shepherd et al., 2012; RCAP, 1996; Wallace et al., 2003). While the BPS framework is not explicitly culturally specific to Indigenous people, the approach is similar to those of many traditional Indigenous knowledge and wellness systems while also having the benefit of maintaining the scientific integrity of treatment approaches to which Western practitioners are accustomed. However, in order for health care practitioners to fully implement the BPS when treating **Indigenous** framework populations, the socio-historical context that colours the experiences of Indigenous people in Canada must be well understood. It is also imperative that a strong emphasis is placed on how the IRS system facilitated intergenerational and population-wide health problems that continue to affect Indigenous people in Canada to this day. Without this context, it is epistemically impossible to implement this framework meaningfully.

Historical Context

In the 1400s, European settlers arrived on the coastlines of North America intending to conquer and colonize the land and Indigenous Peoples living there (Arnold, 2002; Joseph, 2018; RCAP, 1996; Strobel, 2015; TRC, 2015a). After nearly 400 years, the attempts of the European colonizers had largely failed, and Indigenous Peoples still prevailed despite the onslaught and substantial loss of their territories, freedom, and safety (Coleman et al., 2012; Stout & Kipling, 2003; Wuttunee, 2004). As a result, in 1876, the government of Canada enforced a federal law named the Indian Act, which would dictate all aspects of Indigenous legal and public life (Bartlett, 1978; Indian Act, 1985). Though amended in recent years in some ways, the Indian Act overtly enforced the extinction or complete assimilation Indigenous Peoples into European culture and society through several means (TRC, 2015a).

One of Canada's most well-documented assimilation tactics was the IRS system (TRC, 2015a). Often referred to as "boarding schools" or concentration camps, the IRS system housed Indigenous children to enforce the mandate of the first prime minister of Canada, Sir John A. Macdonald: "To kill the Indian in the child" (TRC, 2015a, p. 369). From 1876 until 1996, hundreds of thousands of Indigenous children between the ages of four and 17 were physically forced from their homes and communities by European



colonizers affiliated with Christian institutions or the Royal Canadian Mounted Police (RCMP) and placed in IRS (RCAP, 1996; TRC, 2015a). It is only in the past decade that the more than a century of unlawful and immoral acts perpetrated against hundreds of thousands of Indigenous children in the IRS system has received the term "cultural genocide" at the international level (Barnes et al., 2006; RCAP, 1996; TRC, 2015a; United Nations, 2007). Nevertheless, the impacts of the trauma experienced by children who attended these schools still live on in the individuals, their children, and their communities.

It is the opinion of the authors that the trauma experienced by Indigenous children subjected to RCMP-enforced abductions began on the first day of IRS attendance. Despite what was often considered the best efforts of many Indigenous families, friends, and community to police-enforced abduction stop Indigenous children, those who interfered or retaliated were often abused, jailed, or shot and killed for their lack of co-operation with the law (Bombay et al., 2014a, 2014b; Facing History and Ourselves Canada, 2019; Paul, 2020; RCAP, 1996; TRC, 2015a). In addition, it was a shared experience among many Indigenous children that, upon arrival at the IRS, the majority faced assaults on their bodily autonomy (TRC, 2015a). For example, most children were stripped of their clothes and possessions, were shaved, and had to endure the inhumane experience of having their skin dyed lighter (Smith, n.d.; TRC, 2015a). All children were also assigned identification numbers, similar to those used in concentration camps, to replace their birth names (RCAP, 1996; TRC, 2015a). Furthermore, daily physical, psychological, and sexual abuse was perpetrated against the Indigenous children in these schools, and assaults became even more extreme if they were caught practising their Indigenous culture or speaking their languages (TRC, 2015a). It was also the IRS system that initiated widespread mistrust of Western medical and scientific communities within Indigenous populations in Canada. Children in these schools became the test subjects in abhorrent nutrition studies that left Indigenous

children malnourished and, in many cases, resulted in death (MacDonald et al., 2014). Such atrocities were compounded by the already inferior standards of "health care" provided within these institutions (TRC, 2015b).

Considering the above, this series of highly adverse events experienced from the first day of IRS until their last day of attendance, it is very likely that most, if not all, Indigenous children would have experienced traumarelated symptoms. It is also essential to recognize that within the schools, all children were forcibly separated from the only sources of comfort they had left at that time, their siblings or community members who had been brought to the schools as well. With the lack of social support in the schools and the isolation felt by individuals who returned to their communities unable to speak their traditional languages and no longer connected to their culture, these trauma-related symptoms can be expected to have snowballed into a multitude of health and social consequences that persisted into adulthood (Bohman et al., 2017; Bryant et al., 2017; Coffino, 2009; Lähdepuro et al., 2019; Räikkönen et al., 2011).

The Extent of the Trauma and Its Continuing Impact on Health

Altogether, the writers propose that the shared experiences that occurred on the first day of IRS, in addition to the subsequent continued abuse and compounded by the lack of any social support, is essential context for health providers of Indigenous clients to keep in mind at all times, as the effects of such trauma have been known to propagate generation to generation. Despite not having attended the IRS system themselves, health and social disparities persist among younger Indigenous generations as compared with their white counterparts (Bombay et al., 2014a, 2014b). A phenomenon termed intergenerational trauma suggests that the adversities experienced at the older population level among Indigenous Peoples have had both a direct (i.e., stress hormones in utero) and indirect (e.g., poor socialization and attachment and coping styles) impact on



younger Indigenous generations (Bombay et al., 2014a, 2014b; Lehrner & Yehuda, 2018). As a result, younger generations often experience similar adverse health and social outcomes to those experienced by older Indigenous generations (Bombay et al., 2011, 2014a, 2014b, 2019; Elias et al., 2012; Kaspar, 2014; McQuaid et al., 2017).

At a biological level, the experiences of both direct and intergenerational survivors have resulted in a range of consequences, including elevated stress hormone levels and inflammation, which in turn cause symptoms such as headaches, muscle tension, fatigue, and metabolic syndrome among other physiological consequences (Bombay et al., 2014b; Chief Moon-Riley et al., 2019; Chrousos, 2000; Glaros et al., 2016; Pluess et al., 2009; Tsigos & Chrousos, 2002). Moreover, conditions such as metabolic syndrome are more prevalent in Indigenous populations (Evans et al., 2000; Kaler et al., 2006; Liu et al., 2006). Such physiological distress likely continues to reduce the quality of life for Indigenous people, which, in turn, exacerbates the already poor mental health outcomes experienced by this population (Bombay et al., 2011, 2014b; Chief Moon-Riley et al., 2019).

The social impact of the IRS system cannot be overlooked, with many Indigenous individuals withdrawing from social situations and struggling with work or school performance as a result of the generation-wide stalling of academic and social education perpetrated by the IRS system (Barnes & Josefowitz, 2019; Bombay et al., 2014b). In addition, the forced assimilation into Western culture and loss of community connections, Indigenous culture, and language have resulted in a breakdown of social structures and support networks that have struggled to recover following the closing of the last IRS (Bombay et al., 2014b; Burrage et al., 2022). The comfort individuals normally gain from socially determined, culturally specific social roles and rules was lost within many Indigenous communities following the systemic dismantling of their political autonomy and the attempted genocide of their culture (Bombay et al., 2014b; Burrage et al., 2022; Reyhner, 2018).

On a smaller scale, due to the inhumane treatment received at the schools, the traumarelated symptoms experienced by survivors often inhibit their ability to connect with and relate to their children. In many cases, they may inadvertently display harmful behaviours toward themselves and their children similar to those they witnessed during their upbringing in the IRS system, thus perpetuating the cycle of social and emotional dysregulation and disconnection between generations (Barnes et al., 2006; Bombay et al., 2011, 2014a, 2014b, 2019; McQuaid et al., 2017; TRC, 2015a).

The biopsychosocial symptoms of intergenerational trauma are also compounded by the current economic, political, and environmental pressures faced by Indigenous people that may further exacerbate these experiences of psychological, physical, and social distress (Beaumier & Ford, 2010; Bombay et al., 2014a, 2014b; Ford, 2012; King et al., 2009; Paradies, 2006; Paradies & Cunningham, 2012; Walls & Whitbeck, 2011). To date, studies have demonstrated that such economic and racial pressures and the poor coping strategies (e.g., drug and alcohol abuse) often adopted in their wake can be mitigated by encouraging cultural resilience and Indigenous culture-based healing strategies, suggesting a relationship between social supports and culture, and health (Baldwin et al., 2011; Spence et al., 2016).

Using the Biopsychosocial Framework in Practice

The BPS framework is helpful because it considers the historical and ongoing contextual factors affecting Indigenous people today. It is well-suited to helping clinicians meet Indigenous people in *their* understanding of well-being and traditional healing practices. Using the BPS framework, health care providers can create more effective and culturally appropriate treatment plans by working collaboratively with Indigenous patients and communities and continually working on becoming culturally informed practitioners.

Implementation of the BPS framework in practice occurs on two levels. The first is at the



level of the relationship between the Western health care system and **Indigenous** communities. From the beginning, the historical context surrounding the tenuous-and often abusive—relationship between the health care system, science, and Indigenous communities must be highlighted. Health care providers must acknowledge how such a history is an active negative influence on the biopsychosocial wellbeing of Indigenous communities at large in order for a trusting relationship between the care provider and their Indigenous clients to be established. In order to help facilitate such a relationship, health care providers must ensure they support the development of, maintenance of, and advocacy for community-based, medical, and mental health resources that are Western, Indigenous, or combined. Such action can be taken by establishing relationships between Indigenous populations and the applicable local health authority jurisdictions to curb the effects of limiting Western ideologies on Canadian health care systems. Practitioners must be encouraged, at a systemic level, to have thorough initial conversations with Indigenous clients about available treatments and to develop a comprehensive, culturally appropriate approach based on the patient's preferences. In addition, providers must support Indigenous patients' desire to carry out appropriate Indigenous ceremonies as part of their healing process, as disregarding these critical practices for the patient will continue the trauma of cultural genocide within the population. These are concrete actions that can be taken to address the rift formed between Indigenous communities and Western health care systems by colonization and the IRS system.

The second tier at which the BPS framework may be implemented is at the level of the relationship between the care provider and their Indigenous clients, as they allow its teachings to inform their individual-specific treatment plans. Health care providers must tailor their treatment plans to their Indigenous clients in such a way that the social, historical, and cultural contexts of their medical conditions, as well as their preferences concerning their treatment plans, are

thoroughly and carefully considered. Using the BPS framework in practice may resemble reasoning such as the following. It is well documented that many IRS survivors received poor educational instruction in a racist curriculum delivered by entitled and illequipped staff while in the schools (Barnes et al., 2006; Barnes & Josefowitz, 2019; Claes & Clifton, 1998; RCAP, 1996; Stonechild, 2006; TRC, 2015a). This impoverished curriculum and educational instruction (e.g., a maximum of two hours a day) have been documented as one of the key reasons why, across generations, many Indigenous people continue to lack proficiency in oral and written English and have extreme difficulties with psychosocial development and health (Barnes et al., 2006; Haig-Brown, 1988; First Nations Information Governance Centre, 2018a, 2018b; Miller, 1996; RCAP, 1996; TRC, biopsychosocial 2015a). Bv using the framework, health providers can consider all the specific (and common) IRS experiences, such as poor schooling, that may have resulted in their client being academically ill-equipped and thus having difficulty securing stable employment in adulthood (Barnes et al., 2006). They must then consider how this lack of employment and the reasons for it influence their client's poor health outcomes and can then apply the most effective interventions (Barnes & Josefowitz, 2019; Miller, 1996; Ogle et al., 2013; TRC, 2015a; Vachon et al., 2015).

Concluding Remarks

Generations of Indigenous Peoples have had to face the complex and multi-faceted consequences of colonization, either directly or indirectly, particularly those that stem from the IRS system (TRC, 2015a; United Nations, 2007). While in recent years, health care settings have started to make a concerted and explicit effort to advocate for Indigenous-informed health frameworks in public settings and to encourage Indigenous peoples to engage in their culture, such work can be difficult when social and psychological determinants of health are routinely forgotten. As health care providers—and indeed, as human beings—questioning



personal implicit biases is a challenging task, especially when education regarding a racially and socially marginalized client's particular context is lacking. The BPS framework aids in this process of personal growth by directing attention to the abovementioned contexts. It thereby encourages a more all-encompassing view of health concerns, which will allow for more effective and productive treatments. As health providers, as per the TRC Calls to Action (2015c), we have a duty to uphold reconciliation in colonial contexts, such as within our health care practices, in order for clients to support Indigenous clients best. Even though personal development and the tailoring of subjective aspects of our characters is an ongoing process, using tools such as the BPS framework is a step in the right direction: a step toward the decolonization of the health care system's relationship with Indigenous Peoples at large.

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