transcultural psychiatry

Editorial

Transcultural Psychiatry
2020, Vol. 57(2) 235–249

DOI: 10.1177/1363461520923151
journals.sagepub.com/home/tps
SAGE

Advancing Indigenous Mental Health Research: Ethical, conceptual and methodological challenges

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Abstract

The articles in this issue of *Transcultural Psychiatry* point the way toward meaningful advances in mental health research pertaining to Indigenous peoples, illuminating the distinctive problems and predicaments that confront these communities as well as unrecognized or neglected sources of well-being and resilience. As we observe in this introductory essay, future research will benefit from ethical awareness, conceptual clarity, and methodological refinement. Such efforts will enable additional insight into that which is common to Indigenous mental health across settler societies, and that which is specific to local histories, cultures and contexts. Research of this kind can contribute to nuanced understandings of developmental pathways, intergenerational effects, and community resilience, and inform policy and practice to better meet the needs of Indigenous individuals, communities and populations.

Keywords

Indigenous peoples, mental health, historical trauma, social epigenetics, cultural psychiatry

Introduction

The articles in this thematic issue of *Transcultural Psychiatry* present recent research with Indigenous populations in Brazil, Canada, New Zealand, Norway, and the United States. Despite their geographic and cultural diversity, the papers illustrate some of the distinctive ethical, conceptual and methodological challenges in contemporary Indigenous mental health research. In this introductory essay, we outline these challenges and suggest ways to advance this research. Indigenous peoples are defined as the original inhabitants of a place and generally have traditional cultures and ways of life that were closely tied to the local ecology. In most parts of the world, Indigenous peoples have experienced colonization by European or other settler societies. As a result, such communities continue to suffer from high rates of mental health problems, including depression, substance abuse, and suicide. Indigenous mental health is a key area of concern in cultural psychiatry because of specific social and psychological challenges as well as distinctive forms of resilience, healing, and creative self-transformation. Cultural psychiatry can help to clarify the ways in which structural violence and transformations of culture and community contribute to mental health problems—and to resilience—by critically assessing and culturally adapting relevant mental health theories, models and interventions.

The Mental Health of Indigenous Populations

Several of the papers in this issue examine the prevalence of mental health problems in Indigenous populations both in communities and in specific social settings. Studies in many countries have documented substantial health disparities for Indigenous peoples compared to the general population (Anderson et al., 2016). Although epidemiological data are limited, there

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is evidence for elevated rates of common mental disorders in many populations. The largest body of data concerns suicide rates, which are elevated among Indigenous youth (Harlow, Bohanna, & Clough, 2014). This has been attributed to high rates of exposure to childhood adversity and to the challenges faced by youth in finding their way in a context of rapid culture change and dislocation (Brockie et al., 2015).

As Michael Chandler noted some years ago, however, describing Indigenous populations in general terms as having elevated rates of suicide or mental disorders is an "actuarial fiction" based on reporting global averages (Chandler & Proulx, 2006). In fact, there is wide variation across communities in many indicators of mental health, reflecting the small size of communities (which means that even a few cases result in very high local rates) and the great diversity in history, culture, social organization, infrastructure and community wellbeing. The levels of mental disorders in many communities are lower than the general population, especially with respect to "internalizing" disorders (e.g., depression, anxiety).[1] Moreover, in North America and increasingly around the world, the majority of Indigenous people live in urban settings, but health data on urban populations have been limited.

The study in this issue by Hop Wo and colleagues (2020) reports the rate of psychological distress among Indigenous students at colleges and universities across Canada. Compared to their non-Indigenous counterparts, Indigenous students had higher levels of depressive and anxiety symptoms, substance use, and suicidal ideation and attempts as well as lifetime diagnosis of depression. In a smaller U.S. study of firefighters, a highly stressed group that generally has elevated suicide risk, Stanley and colleagues (2020) found that American Indian and Alaskan Native firefighters had significantly higher rates of suicide attempts during the active period of their career. This appeared to be related to greater exposure to stressful events and losses that increased their vulnerability.

Fuller-Thompson and colleagues (2020) examined the correlates of mental health and well-being in a sample of Indigenous people in Canada living off-reserve that was drawn from the national 2012 Canadian Community Health Survey. They defined "complete mental health" using indicators available from the survey as: (1) the absence of a major depression, anxiety disorders, bipolar disorder, serious suicidal ideation, and substance dependence in the past year as determined by the scales corresponding to the respective CIDI diagnostic modules; (2) happiness or satisfaction with life; and (3) positive indication of psychological and social well-being, using the measure of flourishing devised by Keyes (2002; Keyes et al., 2008; Heather et al., 2017). Based on these criteria, more than two-thirds of Aboriginal peoples had 'complete mental health.' Among other limitations, the survey data used in this secondary analysis did not include northern regions of Canada, which are populated mainly by Indigenous people. Nevertheless, the study identified important factors associated with positive mental health, which may be potential targets for mental health promotion efforts, that included post-secondary education, having a confidant, and experiencing fewer childhood adversities.

The overall picture provided by epidemiological survey data on Indigenous populations is of elevated rates of common mental disorders in many communities or regions. Set against the backdrop of high levels of ongoing adversity, however, the data also indicate great resilience. The ten articles in this special issue deploy a variety of methods (e.g., interviews, focus groups, surveys) for exploring the complexity of Indigenous mental health in distinctive contexts (e.g., Norwegian mental health clinics, a school on a First Nations reserve). Conceptual and methodological diversity is a clear strength insofar as these contributions represent findings from across the spectrum of contemporary Indigenous identity, life, and experience. With limited research resources designated for exploring mental health and well-being in these populations, every study can meaningfully expand our understanding of this broad and complex domain. And yet, a key challenge associated with such methodological breadth is the difficulty of integrating findings into a cumulative and coherent portrait of Indigenous well-being across very diverse peoples and settings.

Capturing Indigeneity in Indigenous Mental Health Research

The meanings of indigeneity vary with social, historical, and political context, posing challenges to obtaining coherent, representative samples. The different sampling strategies adopted by the studies in this issue illustrate this challenge. They range from service recipient case studies (Kopua et al., 2020) to large survey samples that were designed to generalize to a national population (Fuller-Thomson et al.). They focus by design on younger student-aged populations (Blacklock et al., 2020; Hop Wo et al.) or vocation-specific respondents (such as clinicians [Dagsvold et al., 2020] or firefighters [Stanley et al., 2020]). They include community-based participants whose responses presumably reflect contemporary tribal life (e.g., Naskapi school children [Blacklock et al.], Southeastern tribal nations in the USA [McKinley et al., 2020], or Swampy Cree reserves in Canada [Isaak et al., 2020]). The smaller samples are balanced

by gender, but larger samples are heavily skewed toward Indigenous women (with only the firefighter participants being heavily skewed toward Indigenous men [Stanley et al.]). Eight studies sampled Indigenous respondents from CANZUS states;[2] five of these were from Canada, two were from the USA, and one was from New Zealand, with only two from non-CANZUS nations. Almost all samples appear to have classified Indigenous status by self-report only.

The classification of Indigenous status for research purposes warrants careful scrutiny because it aims to invoke some meaningful referent but may hide tensions between (implicit) political definitions and specific scientific questions. In the context of mental health research with "vulnerable populations," the term *Indigenous* denotes peoples and communities designated as such through various histories and practices around the world, and connotes shared qualities or attributes associated with these peoples and communities that are taken to be relevant to their mental health and well-being. Indeed, the validity of such a category in mental health research presumably depends on these shared qualities or attributes, such that investigators draw on samples that represent or reflect these qualities or attributes. In relation to mental health research, these shared qualities or attributes might include long-standing relations to homelands, animist forms of spirituality, and enduring and distinctive cultural practices. One primary candidate that routinely transcends these is the mental health impact of the legacy of European colonization (labeled "historical oppression" by McKinley et al.).

Whatever these key qualities and attributes might be, a methodological problem arises in the recruitment of Indigenous research participants when the relevant qualities and attributes are not directly assessed in research but rather presumed (and subsequently implied) through use of proxy variables. All research is reductionist, and widespread use of proxy variables is in itself not a problem, unless or until the proxy becomes too far removed from the phenomenon it was designed to represent. Unfortunately, self-identification by research respondents as Indigenous may in fact be too reductionist to be useful, at least in some research operationalizations and in some national contexts. For example, in their secondary analysis of a large dataset, Hop Wo et al. aggregated survey responses from self-identified Indigenous students from as many as 32 Canadian universities who endorsed "Aboriginal" among fourteen options in response to the query, "What is your racial or ethnic identification? (select all that apply)" (p. 265). To their credit, the authors explained that over 60 percent of their Aboriginal sample endorsed some other racial or ethnic option in addition to Aboriginal, which means that a majority of these respondents self-identified with mixed heritage.

Who, then, are these (largely mixed) Canadian Aboriginal college students imagined as representing? The answer is subject to empirical inquiry in itself, of course, but furnishing additional context with respect to the interpretation of such self-identification patterns would be illuminating as well (though none of these studies provided this contextual information). By way of comparison, the first author (JPG) identifies as *Aaniiih*-Gros Ventre from the state of Montana in the USA. He is an enrolled member of the Fort Belknap Indian Community, but with a variety of Indigenous ancestral lines (including *Aaniih*, Assiniboine, Nez Perce, Crow, and Little Shell Chippewa) as well as White ancestry (mostly French, including French-Canadian Metis) and perhaps some African ancestry (possibly from a Black buffalo soldier). Indeed, the vast majority of American Indian (AI) people in the USA also have non-Native ancestry. And yet, the first author has never identified as mixed-heritage (or "mixed race"), Metis, French, White, Black, or anything other than *Aaniih*, AI, or Native American in completing bureaucratic paperwork, research surveys, or the U.S. Census. In the USA, people who identify as AI and some other ethnoracial status are actually distinguishing themselves—usually as more distanced from a tribal lineage or community and/or in acknowledgment of a non-Indigenous, non-White parent—by doing so.

Interestingly, Hop Wo et al. appear to already possess the necessary data to explore the statistical relationship to key outcomes for their mixed-heritage Aboriginal respondents as well as for their over 400 Aboriginal-only respondents. Assuming that the reduced sample size would allow comparable analyses, this would further illuminate these findings with respect to Canadian Aboriginal self-identification patterns. With respect to the USA, however, there is ample reason to exercise caution when analyzing findings with AI samples that are based on self-identification only (for an example involving mental health research, see Hack, Larrison, & Gone, 2014). Owing to long histories of exogamous intermarriage among AI peoples, many citizens of the USA might accurately lay claim to AI racial ancestry despite their complete disconnection from living AI kin, vibrant tribal communities, or enduring Indigenous lifeways (Snipp, 1992). Beyond this, many Americans are increasingly motivated to claim AI racial ancestry, even when the possibility of such ties is ambiguous or unlikely. For example, Sturm (2011) has documented the emergence of hundreds of new Cherokee groups or "tribes" over the past three decades that are primarily comprised of southern, working class Whites who have "racially shifted" to

AI identities—frequently on the basis of real or imagined (but usually remote) ancestry—as a means for participating in alternative spiritualities and close-knit communities of their own making.

Whatever the benefits of such novel activities and affiliations for these individuals, it seems clear that such identifications would be rather meaningless in terms of applying research findings to an appropriate referent with respect to questions of mental health and well-being for AI people. In consequence, AIs in the USA have long argued that personal acknowledgment of one's Indigenous ancestry, though necessary, cannot be sufficient for claims to AI identity. In this sense, AI status has become constituted beyond mere racial designation or classification; instead, AI identity is widely recognized among Native people themselves as a *political status*. More specifically, such status is accorded to individuals who are documented members of enduring tribal communities. For example, the federal government in the USA maintains government-to-government relations with 574 "federally-recognized tribes." These communities—whether by tradition, documentation, or both—are the remnant and resurgent posterities of Indigenous peoples who signed treaties, ceded land, and otherwise exercised the powers of "nations" in centuries past. They continue to occupy an utterly distinctive legal and political status as "domestic, dependent nations" within the USA, exercising (curtailed) powers of political sovereignty (Pevar, 2004).

Of course, there are many reasons why membership in a federally recognized tribal nation is also not a foolproof way to identify AIs. For example, the descendants of Black Freedman—former slaves of southern Cherokee elites, many of whom were also Cherokee by ancestry—were long denied contemporary inclusion in the Cherokee Nation of Oklahoma despite a post-Civil-War treaty in which the Cherokees consented to include their Freedman within the tribal body politic (Miles, 2015). Owing to complicated tribal membership policies, it is also possible for multitribal individuals—whose ethnoracial status as AIs remains unquestionable—to fail to qualify for membership in any given tribal nation. Thus, given the heterogeneous (and highly contentious) referent invoked by some contemporary practices of Indigenous self-identification,[3] it is incumbent on researchers to specify and justify their preferred operationalizations of indigeneity in light of study goals (with perhaps a fallback remedy of privileging categorizations based on tribal membership in contexts such as the USA). Similar efforts to anchor Indigenous self-identification to valid referents should be developed for other national contexts as well. Socially assigned ethnoracial identities capture the local categories through which others see the individual, while self-identification reflects developmental processes of identity construction and ongoing affiliation. Both may be related to social determinants of mental health and health inequities (White et al., 2020). In sum, for researchers who study Indigenous mental health and well-being, greater sophistication and nuance in defining indigeneity are both welcome and warranted.

Investigating Historical Trauma in Indigenous Mental Health

There is widespread commitment in mental health research involving Indigenous peoples to link, frame, or contextualize mental health problems in these populations with the devastating legacy of European colonization (Paradies, 2016; Nelson & Wilson, 2017). Indeed, the very meanings of indigeneity are deeply entangled with colonization histories, whether directly or indirectly. Most directly, indigeneity is frequently conceived as a social-historical understanding of communities as First Peoples, which necessarily includes the long shadow cast by colonization even as this is now lived and expressed in relation to political agency. A second meaning of indigeneity entails land-based notions of personhood as connected to particular places grounded in local ecologies, through cultural knowledge and practices. In almost every instance, these have been disrupted by colonization, whether by dispossession and relocation or subjugation and coercive assimilation. A third meaning of indigeneity entails notions of cosmology, ceremony and the sacred, which relate Indigenous communities to potent spiritual persons and powers, and express culturally specific values of divinity, community, morality and well-being (i.e., living a good life). These, too, have been dramatically transformed by colonization, as purported Indigenous savagery was systematically suppressed and displaced by supposedly civilized Christian and modern institutions and orientations.

In recent years, one increasingly dominant discourse has involved a sense of identity framed in terms of the transgenerational effects of "historical trauma" (HT). HT refers to the suffering visited on Indigenous peoples as a result of the collective history of colonization and subsequent disruption of traditional life ways and active suppression and systematic devaluing of culture and identity (Brave Heart & DeBruyn, 1998; Gone et al., 2019; Hartmann et al., 2019; Kirmayer, Gone, & Moses, 2014). In this framework, individuals are seen as the descendants of survivors, who are valorized for their endurance of oppressive conditions. The trauma framework makes an explicit connection to the Holocaust and other genocides and thus links the current predicament of Indigenous peoples to the

recognition and moral condemnation of massive human rights violations that have had devastating effects. Given this recognition, the aim in healing is the restoration of autonomy and self-determination for nations and peoples through reclaiming culture, especially for therapeutic ends (Gone, 2013).

In Canada, the Aboriginal Healing Foundation, established with financial support by the federal government, funded a wide range of healing activities to address the legacy of the Indian Residential Schools (IRSs). Many of these projects and programs centered on collective history, ensuring that the disruption of cultural continuity and identity wrought by the IRSs was reversed (Waldram, 2008). The recent Truth and Reconciliation Commission of Canada (TRC) also focused on the importance of recognizing history and redistributing power as ways to move toward reconciliation and a renewed relationship between Indigenous peoples and the descendants of the settler state (Sinclair, 2015). This points to the fact that any understanding of Indigenous culture must consider the dynamics of relationship to the larger society.

Historical Trauma as a Scientific Construct

Within the health sciences, HT (which is invoked by five of the articles in this thematic issue) has been the primary means by which to identify and capture the legacy of colonization, which is frequently framed as a social determinant of health for Indigenous peoples (Hop Wo et al.; McKinley et al.; for a theoretical overview, see Hartmann et al., 2019). As with social determinants of health more generally, there has been broad interest among the proponents of this framework in the mechanisms by which ancestral suffering might result in psychological risk for current generations. In Canada, the legacy of colonization represented as HT has been primarily tied to the IRS system.[4] Much research that explores the impact of HT on Indigenous health has adopted either the historical loss scales developed by Whitbeck and colleagues (2004), or operationalized HT as self-reported IRS ancestry. Both approaches have contributed to a growing understanding of these complex relationships, even as both are hampered by conceptual and methodological limitations (Gone et al., 2019).

With respect to the deleterious impacts of the IRS system, Matheson and colleagues (2020) solicited survey responses from an online sample of Canadian Indigenous participants to assess the relationships between depressive symptoms and parental communication about their own experiences in the IRSs. Their findings were nuanced, but suggested that direct (rather than indirect) parental communication was mediated by cultural pride (but not perceived discrimination) in accounting for depressive symptoms among offspring. This study is the most current entry into a promising corpus of research that is systematically unpacking the associations between one prevalent formulation of HT (i.e., IRS ancestry) and adverse health outcomes. In their recent systematic review of the behavioral and health science literature addressed to the health outcomes of HT for Indigenous populations, Gone and colleagues (2019) identified 11 studies that operationalized HT in terms of ancestors who attended IRSs. With respect to these studies (including Matheson et al.), they cautioned that, owing to the cross-sectional methods employed in this research, "demonstrated associations are open to alternative interpretations about the direction of effects" (p. 26). In the study by Matheson and colleagues, for example, it is not possible to determine whether IRS ancestry caused depressive symptoms among offspring, or rather whether depressed offspring were more likely to recollect or report communication about the IRS experience from their parents. And yet, the validity of HT as a social determinant of health appears to depend on its hypothesized impact (in causal fashion) on risk and vulnerability to mental health problems among future generations of Indigenous people.

In contrast, McKinley and colleagues (2020) have responded to critiques of HT by widening their conceptual focus to include a broader "understanding of the consequences of colonization beyond its psychological sequelae" (p. 291) as well as incorporating not just ancestral-historical oppression but also ongoing and current structures of disadvantage. In certain respects, this formulation is a conceptual step backward in order to move forward. Specifically, if HT was the consolidation of two earlier concepts, *historical oppression* and *psychological trauma* (Kirmayer, Gone, & Moses, 2014), then McKinley and colleagues endeavor to undo this merger and instead retreat to the familiar notion of historical oppression. The methodological step forward, however, is the attempt to operationalize this familiar concept for purposes of undertaking health research in Indigenous communities. One conceptual dilemma that persists is the bridging of history with contemporary structures of disadvantage. In their new Historical Oppression Scale, McKinley and colleagues inquire about the extent to which ten behaviors (e.g., jealousy, excessive alcohol use, unfair treatment) currently occur within an Indigenous community. The only link to history is the opening clause of the general prompt: "As a result of historical events. . ., how much do you think members of your community. . .have [participated in these behaviors]?" And yet, this clause is quite subtle, even as all structural disadvantages in any community result from "historical events." Does the prompt therefore tap into the local historical

consciousness of respondents? Or does it barely register for participants as they execute this response task, functionally omitting the relevance of history from their answers?

These researchers are not the only investigators to grapple with the challenge of measuring HT (Gone et al., 2019; Hartmann et al., 2019). An earlier study by Wiechelt and colleagues (2012) stands out for its illumination of these conceptual challenges. This study adopted the Whitbeck scales for use with 120 Indigenous adults in Baltimore to assess the relationship between HT and alcohol and drug usage. Interestingly, two-thirds of the urban Baltimore sample identified as Lumbee Indian, with another 20 percent identifying as Cherokee. Although these researchers found a slight association between one of these scales and past-30-day alcohol use, the more intriguing finding was that these urban Indigenous respondents recorded higher scores on the Whitbeck measures than the reservation-based mid-Western U.S. samples with which Whitbeck originally developed his measures: "Notably, the finding that the urban [AIs] in this sample had higher mean scores on historic loss thoughts and historic symptoms than [Whitbeck's] reservation sample suggests that [AIs] living in urban areas may experience more severe HT and symptoms than AIs living on reservations" (p. 328).

What is essential for proper interpretation of these results is a more comprehensive demographic description about this urban Baltimore sample, particularly with respect to the multiracial (as opposed to multitribal) identification of these respondents. If Baltimore's urban AIs are at all like other urban AI populations, they are widely disbursed throughout the metropolitan area, heavily intermarried with non-Indigenous groups, and vary considerably in their familiarity with and practice of AI cultural traditions in comparison with most reservation-based samples. Certainly, the sample majority of Lumbees—long (and pejoratively) considered "tri-racial isolates" because of their extensive intermarriage with White and Black populations (Lowery, 2009)—raise conceptual complications for studies of intergenerationally-transmitted HT. Given their long history of mixed ancestry, one might expect that they would be *less* heavily impacted by specifically Indigenous historical losses as traced through partial ancestral lineages than Whitbeck's more heavily interrelated and communally engaged, mid-Western reservation samples. And yet, the Baltimore sample reported much higher rates of distinctively AI HT as operationalized by the Whitbeck scales. How is this possible for an incredibly diverse (and probably extensively multiracial) urban sample in light of Brave Heart and DeBruyn's (1998) original HT theory that emphasized cumulative secondary traumatization (or "transposition") through Indigenous family lines and the salience of communal and collective AI experience? In other words, the generic dynamics at play in classic HT theory's construal of AI identification presents a formidable challenge for any mixed, urban sample (just as it should for reservation samples with mixed ancestries as well, albeit presumably to a lesser degree depending on historical rates of intermarriage).

Wiechelt and colleagues suggested that the Lumbee's poor treatment by the U.S. federal government may have placed them at greater risk than Whitbeck's original sample. However, researchers in this domain must consider an alternative that is crucial to recognize and explore: the significance of group-based self-awareness and associated meaning-making. Trauma is a trope that provides a way of thinking about suffering and reshapes experience through what Hacking (1998) has called "looping effects". This perspective emphasizes the figurative (and metonymic) aspects of HT, not as a literal historical causal agent, but rather as a proximal (and increasingly popular) discursive frame for subjective and shared Indigenous identity. In other words, what indigeneity or "Indianness" may increasingly connote in subjective terms is identifying oneself as a survivor of HT. The "performance" of AI identity then requires that one acknowledge and mourn the losses that the Whitbeck scales purport to index, and to report expressions of emotional distress in light of these. As a result, the HT paradox (in which reservation AIs may be less susceptible to the effects of HT than urban multiracial AIs not born on reservations and far removed from these somewhat more insular communities) finds a more probable explanation: HT may discursively stand in for the "perceived loss of self-respect from poor treatment" that the authors pinpointed (p. 329). In this regard, then, it would not be surprising that AIs in urban settings might generally report more grief and loss because they (in all likelihood) retain less concrete cultural points of reference for what it means to be AI than their reservation kin; as a result, the construal of an AI cultural identity that is more heavily marked by a global sense of historical victimization and colonial tragedy takes on greater significance relative to an elaborated sense of cultural embeddedness.[5]

In general terms, then, the methodological challenge becomes one of differentiating between the actual causal impacts of historical oppression on the one hand, and contemporary post-hoc processes of Indigenous meaning-making on the other hand. In this respect, Gone et al. (2019) reviewed 19 studies that adopted the Whitbeck measures and reported deleterious health outcomes associated with reported

historical losses. Although it is tempting to conclude on this basis that the actual historical losses themselves caused these health outcomes among Indigenous descendants, such a conclusion would in fact reify the very construct in question. Instead, the measures used in these surveys (whether the Whitbeck scales or the new McKinley et al. scale) may reveal nothing about the actual causal effects of historically distant trauma experiences on mental health or distress in these samples. Instead, all that is known is that respondents report thoughts about such experiences (quite possibly in generic or abstract terms), they report concurrent feelings of distress in association with such thoughts, and they report negative interpersonal behaviors in their communities that they (might) attribute to historical oppression. Moreover, these attributions are typically reported in the context of sometimes explicit (and otherwise implicit) priming of their Indigenous identity by the study conditions themselves.

To an unknown degree, the findings in these reports may reflect the looping effects of knowledge in the human sciences: AIs who have increasingly encountered HT as a concept have thereby been socialized to report their experiences as an accepted and expected expression (or enactment or performance) of contemporary AI identity (Mohatt, et al., 2014). Without additional efforts to disentangle these processes, all we know for now is that AI samples routinely report thoughts, feelings, and attributions associated with oppressive histories in studies that do not allow a clear differentiation of historical causality from contemporary meaning-making.

Historical Trauma and Epigenetic Transmission

A second area of confusion in theory and research about Indigenous HT emerges from the enthusiasm among health researchers and Indigenous communities to endorse putative biological pathways of intergenerational transmission of ancestral suffering that places current Indigenous descendants at risk for mental health problems. In particular, recent research in epigenetics that demonstrates intergenerational transmission of alterations in stress response systems has been greeted with great interest. Indigenous researchers and advocates have seen epigenetics as offering an explanatory paradigm relevant to understanding intergenerational and HT, with many proponents of Indigenous HT attempting to harness the implications of epigenetics for social policy and advocacy as well as mental health promotion in the CANZUS nations.

In advancing the notion of the transgenerational transmission of HT, however, some proponents risk overstating the evidence in support of the postulated heritability through epigenetic transfer of ancestral trauma. First, the argument is too often essentializing in that it reproduces stock notions of HT by basically equating Indigeneity (especially in Canada) with exposure to the abuses of the IRS system in ways that elide the historical complexity and diversity of experiences. Second, the argument presumes that the cross-generational epigenetic transmission of risk for mental health problems such as posttraumatic stress disorder and other stress or trauma related conditions is settled science rather than merely a tantalizing (but still largely hypothetical) possibility. Because non-experts cannot be expected to assess epigenetic science on their own, some caution is warranted in offering sweeping statements about the potential for epigenetics to advance broad societal commitment to remedying Indigenous mental health problems.

As critics have noted, the widespread discourse of HT is typically an "essentializing" discourse, which is to say that it radically reduces nuanced and complex Indigenous experiences to monolithic tropes (see Kirmayer, Gone & Moses, 2014, and other articles in the 2014 thematic issue of this journal). In this case, one common trope is that the modal Indigenous person suffered debilitating abuse in an IRS that placed the person, his or her offspring, and his or her community at risk of dysfunction for generations to come—with epigenetic processes representing a chief means for intergenerational transmission of this risk. In reality, at any given historical moment, most Indigenous people did not attend IRSs, many who did would not report that they suffered horrific abuse, and even among those who do report abuse, many do not believe that it negatively impacted their adult lives (see Elias et al., 2012, for one example of this sort of complexity from a single region of reserves in Canada).[6]

Beyond this, the expanding literature by scholars such as Matheson and colleagues (2020) represents a promising and important set of empirical contributions to this discussion. Nevertheless, these studies generally have important methodological and practical limitations. One key limitation, discussed above, is that these associations are based on retrospective self-report, which means that causal interpretation is ambiguous (e.g., perhaps distressed Indigenous respondents are more likely to have inquired about their ancestors' experiences in IRSs or are simply more likely to recall or report that their ancestors attended IRSs than non-distressed respondents). A second limitation to drawing practical implications from these studies stems from the fact that the statistical associations between current Indigenous distress and ancestral IRS experiences are usually small, suggesting that other factors may be more influential. Moreover, it is likely that any epigenetic effects will exert their influence over time in particular

developmental and social contexts, raising doubts about the effort to prioritize epigenetics over other determinants of health.

None of this is to defend the tawdry, negligent, violent, and frequently harmful legacy of the IRSs, or other forms of oppression, in Canada and elsewhere. Nor is it to abandon a critique of the myopic and politically indefensible agenda of assimilation that created and supported this system. Rather, it is simply to observe that Indigenous people (or any people) respond to systemic oppression in multiple ways that go far beyond what can be captured with notions of dysfunction and disorder, including grief, resistance, and resilience. The ways in which some proponents of HT characterize Indigenous people as uniformly injured by IRSs are extremely reductionistic. The origins of Indigenous problems are multifaceted and include the plundering of Indigenous lands and resources, community impoverishment through sedentarization or environmental destruction, and ongoing structural violence.

More importantly, the characterization of epigenetics in current discussions of HT frequently lacks nuance. Without doubt, emerging research in epigenetics warrants excitement. But epigenetic analysis is still new and its findings are still tentative, requiring (as is frequently observed in review articles) additional replication, larger sample sizes, greater control of confounding factors, longitudinal research designs, and a shift from animal to human studies (Chung, Cromby, Papadopoulos, & Tufarelli, 2016; Zannas, Provencal, & Binder, 2015). The most widely investigated epigenetic questions pertaining to human health problems concern early childhood experiences (or even *in utero* exposures) that appear to alter genetic expression in ways that increase risk for problems for a given individual later in life (O'Donnell & Meaney, 2020). In this sense, epigenetic research suggests additional explanatory pathways for the development of such problems at a biological level of analysis (Conching & Thayer, 2019; for an overview pertaining to Indigenous health problems, see Brockie, Heinzelmann, & Gill, 2013).

However, linking these basic biological processes to individual experience over time requires a broader, multilevel, multifactorial account (Seligman, Choudhury & Kirmayer, 2016). Epigenetic modulation (which may involve hundreds or thousands of modifications in addition to the few currently studied) exerts its effects through interactions with other genetic, epigenetic, neural, behavioral and ecosocial processes (O'Donnell & Meaney, 2020). Moreover, some epigenetic changes may be transmitted not through intracellular mechanisms but through developmental pathways, as mediated by caretaking behaviors that are themselves malleable. This challenges the tendency to view epigenetic effects as over-riding other social-environmental influences (Lloyd & Raikhel, 2018; Meloni, 2019). Certainly, current research in epigenetics is interesting and important, but rather than providing a single mechanism to explain the transgenerational transmission of vulnerability it serves mainly to further complicate the already complex portrait of the biological and social underpinnings of psychiatric and behavioral health risk (Huang & King, 2018).

Despite the early state of research in epigenetics, many proponents of HT have highlighted epigenetic explanations for the biological transmission of adverse individual experience to subsequent generations of offspring and descendants (O'Neill, Fraser, Kitchenham, & McDonald, 2018; Walters et al., 2011). The claim that epigenetics can account for such transmission of intergenerational risk—especially resulting from psychological trauma among one's distant ancestors—is intriguing, but at present, the actual evidence is scant, and subject to wide debate and contestation (see, for example, Grossniklaus et al., 2013). Unfortunately, rarely in current discussions is mention made of the severe limitations of the extant evidence base in support of intergenerational epigenetic processes or of the disparate opinions on the subject that are expressed by experts in this field (Dubois & Guaspare, 2020; Yehuda, Lehrner, & Bierer, 2018).

Thus, the epigenetic argument for transgenerational transmission of HT appears to rely on two lines of research—the intergenerational impacts of IRS experiences and the evidence for epigenetic transmission of health risks across generations—that are both beset by imposing methodological challenges. Moreover, it is striking that harm and damage are heavily emphasized in this argument when epigenetic effects would seem to be reversible, and there may well be epigenetic mechanisms for conveying hardiness and resilience as well. At the very least, proponents of epigenetic explanations for HT should ensure that their argument is understood to be tentative, preliminary, and provisional, taking great care not to mislead audiences—including Indigenous people and communities—for whom epigenetic science is foreign intellectual territory.

Finally, even if intergenerational transmission of risk and vulnerability stemming from ancestral experiences of psychological trauma becomes settled science, questions will remain about how the biologization of distress that is advocated by this account will truly serve Indigenous interests. Terms like "epigenetic disadvantage" (Loi, del Savio, & Stupka, 2013) and "epigenetic damage" (Crawford, Wohigren, Diemer, & Scott, 2015; Spears, 2017) reflect a strong biomedical frame, but scholars adopting critical lenses have long warned of the societal dangers of overreaching

medicalization (Conrad & Bergey, 2015) and genetic explanations of behaviours (Gillett & Tamatea, 2012; Lock & Palsson, 2012). Characterizing collective suffering in biomedical or psychiatric terms can lend force to claims for social, political and economic reparations. In the context of Indigenous policy and politics, however, medicalization can be far from emancipatory, furthering the reduction of multifactorial social problems to individual pathology, and construing Indigenous peoples as groups of dis-eased patients in need of better medical treatment rather than as oppressed communities that struggle for social and economic justice.

In the end, HT proponents express hope that the potential relationship between environment and gene expression may mobilize societal transformations in service to Indigenous people. Epigenetic science reveals the functional genome to be a dynamic system responding to developmental conditions that are potentially malleable in response to positive changes in social policy and practice. But it is also possible that an emphasis on "epigenetic disadvantage" will be deeply stigmatizing (in the way that construing psychiatric conditions as brain diseases has been for people with mental illness [Reed & Harre, 2001]), and therefore politically regressive relative to Indigenous interests in sovereignty and self-determination. Indeed, recent critics have proposed that scientific discourse surrounding epigenetics actually adopts a eugenics-like logic (Mansfield & Guthman, 2015). If biology is destiny in the popular mind, or if reversing epigenetic "marks" is held to require widespread intervention by professionals, who would really be expected to support the call to allocate funds for "epigenetically damaged" communities to remake their own societies as they see fit?

Culturally Responsive Indigenous Mental Health Services

In many settings, Indigenous peoples may underutilize mental health services because of lack of access, stigma and mismatch with their needs and expectations (Gone & Trimble, 2012). Health services utilization is a function not only of the prevalence of specific medical conditions or concerns but also how people interpret their symptoms and suffering and decide to seek particular forms of help. This process of decision making and help seeking is grounded both in cultural knowledge and practices as well as local resources and available pathways to care. Isaak and colleagues (2020) examine whether a conventional model of help-seeking captures the ways that First Nations community members think about mental health services. They identified some key factors not usually included in common models of help-seeking that need to be considered to design modes of access and service delivery consonant with local cultural perspectives and concerns. In particular, Indigenous notions about spirituality and the tendency to adopt avoidant strategies appeared to influence help-seeking.

Of course, Indigenous perspectives are not simply barriers to appropriate use of mental health services. Rather, these perspectives include sources of healing, strength and resilience in their own right. A burgeoning literature explores Indigenous "culture" as cure (Gone, 2013). Specifically, Indigenous cultural orientations, processes, and practices illuminate pathways to health and well-being through robust Indigenous identities, traditional teachings, and local construals of self and personhood that can inform, complement, or supplant psychological and psychiatric approaches to many forms of suffering.

In this issue, Blacklock and colleagues (2020) present data from a Naskapi community in northern Quebec showing that Indigenous cultural identification is associated with fewer internalizing symptoms among those 14 to 18 years of age. Contrary to earlier studies, ancestral cultural identification was not associated with externalizing symptoms, and mainstream cultural identification did not correlate with either externalizing or internalizing problems. The authors speculate about contextual factors that might account for this discrepancy. As they note, identity encapsulates various meanings in different social contexts, and simple questions about level of comfort in and enjoyment of Indigenous or "mainstream" culture may not be sufficient to capture the ways that such identities are lived and practiced. More intensive ethnographic research could lead to better measures to characterize the ways in which identity impacts resilience and well-being (Kirmayer et al., 2011; 2012).

Meili and colleagues (2020) examine the metaphors used by members of the Indigenous Pitaguary community in Brazil when prompted to reflect on adaptation, resilience, and recovery in response to adverse experiences. They found recurrent metaphors that were related to cultural, ecological, and spiritual dimensions of Pitaguary life. These metaphors were grounded in embodied experiences but were elaborated through narratives that referenced cultural ontologies. In contrast to these local cultural frames, more individualistic or egocentric tropes and narratives were less common. The authors speculate that this may reflect limitations in the level of trust and self-disclosure in the research interviews or a more pervasive cultural orientation that downplays the individualistic ethos that characterizes Euro-American psychology (Kirmayer, 2007). In either case, this has implications for efforts to promote resilience or provide mental health services (Kirmayer et al., 2009).

Kopua and colleagues (2020) argue for the importance of Indigenous approaches to mental health. They illustrate this with two clinical cases that adopted a Maori model they designate as *Mahi a atua*. *Mahi a atua* is centred on the Maori concept of *wananga*, which refers to the intergenerational transmission of wisdom that involves a stance in which one is enjoined "to hold strong to the past while staying present in the moment" (p. 378). In therapeutic interactions, traditional stories were used to convey cultural knowledge and wisdom about coping with difficult emotions and relationships.

These stories guided patients toward a more adaptive mode of coping. The stories hold the power and authority of cultural tradition, and thereby render problems and their resolution not merely as individual concerns but rather as reflecting larger, shared cultural themes. In many instances, stories may be known already by the participants. In Kopua and colleagues' second case, the therapist recognized the client's father as a knowledge holder who could be helpful in unpacking broader cultural and familial meanings of the patient's suffering. The inclusion of these stories thus served as a way to intervene in family systems, share cultural knowledge, valorize and affirm cultural identity, and restructure cognition through new narratives or metaphors for experience.

As these papers suggest, there are multiple cultural frames through which Indigenous people can make sense of their predicaments and seek therapeutic transformation. In addition to the many different explanations in play from diverse medical, psychological, and religious systems, it is possible to broadly distinguish three inter-related frames specifically related to the meanings of indigeneity discussed earlier in this paper: (1) social-historical understandings of communities as First Peoples, which includes the legacy of colonization, now navigated in relation to political agency; (2) land-based notions of the person as connected to a particular place with its ecology, through cultural knowledge and practices; and (3) notions of ceremony and the sacred, which express over-arching values of morality and living a good life.

With respect to navigating the colonial legacy, the focus on intergenerational trauma implicitly mandates trauma-related psychotherapies to help patients move from the position of victims to survivors and, ultimately, to resilient thrivers. Ironically, participating in these individually oriented modes of trauma therapy may reinforce an individualistic "egocentric" self that is at odds in some ways with traditional cultural values and self-orientations (Gone & Kirmayer, 2010; Kirmayer 2007). And yet, at the collective level these narratives serve important political functions, such as calling attention to injuries that were colonial, collective, cumulative, and cross-generational (Kirmayer, Gone, & Moses, 2014).

With respect to land-based notions of the person, an important frame available for self-fashioning and therapeutic negotiation involves an ecological sense of self that is rooted in the land and relationships with nonhuman agencies or persons (Gone, 2008; Kirmayer, 2007). In the past, this was closely related to subsistence activities vital for survival, but today these activities are usually connected directly to well-being and quality of life, the maintenance and transmission of cultural knowledge, and the expression of collective identity.

With respect to notions of ceremony and the sacred, a final related frame concerns the spiritual aspects of self that are lived through ritual and religious practices—including Indigenous healing practices (Gone, 2010, 2016; Moorehead, Gone, & December, 2015)—that express proper relationships by harmonizing with nonhuman powers, persons, and purposes, which simultaneously affirm core values of the individual's life journey (Gone & Calf Looking, 2015; Waldram, 2008).

Each Indigenous community has its own versions of these and other frames, but there is also circulation of ideas and practices across traditions and the widespread adoption of various forms of pan-Indian identity and spirituality. Individuals within any community vary in the extent to which they engage with each of these frames. At the same time, these serve important political functions that may set up tensions between collective uses and individual needs that complicate their adoption in therapeutic and healing contexts.

In clinical settings, the challenge of responding to diverse Indigenous experience has been framed in terms of *cultural competence*, which typically emphasizes practitioners' knowledge, skills, and attitudes, and *cultural safety*, which focuses on issues of power in the context of helping relationships as embedded within larger institutional structures (Kirmayer, 2012b). The dilemmas that confront efforts to implement cultural competence are clearly evident in the study by Dagsvold and colleagues (2020) in this issue, which explored Sami and non-Sami clinicians' ways of thinking about Sami culture and how these influenced clinical practice.

As reported by Dagsvold and colleagues, these clinicians conceived of culture in terms of traits, and tended to reproduce some stereotypical notions of Sami as having specific characteristics that impeded their usage of mental health services and participation in therapeutic dialogue. The lack of a more nuanced, multidimensional, and interactional view of culture, as well as a broader institutional commitment to addressing

cultural issues, appeared to limit clinicians' ability to integrate cultural knowledge in their assessments and interventions. The authors mention the potential for the *DSM-5* Cultural Formulation Interview to guide clinicians in more systematic inquiry into social and cultural context, but changes in institutional values and practices are essential to ensuring the centrality of Indigenous perspectives in mental health services. This is at once an ethical, political and pragmatic necessity.

Conclusion

Taken together, the articles in this issue demonstrate the potential for meaningful advances in mental health research pertaining to Indigenous peoples, illuminating the distinctive problems and predicaments that confront these communities as well as unrecognized or neglected sources of well-being and resilience. As we have observed in this introduction, however, future research will benefit from greater conceptual clarity and methodological refinement. Such efforts will enable additional insight into that which is common to Indigenous mental health across settler societies, and that which is specific to local histories, cultures and contexts. Research of this kind will contribute to nuanced understandings of developmental pathways, intergenerational effects, and community resilience, and thereby inform policy and practice to better meet the needs of Indigenous individuals, communities and populations.

There are crucial ethical dimensions to research on Indigenous mental health, and future scholarly inquiry must take great care not to reproduce the structures of power, domination, and exclusion that have wreaked havoc with Indigenous lives and communities. The epistemic violence and injustice of silencing Indigenous perspectives can be addressed by putting cultural safety and responsiveness at the center of research activities from its earliest inception to its ultimate translation into shared knowledge and practice (Kirmayer, 2012a). But neither can research simply be the handmaid of political action. Insofar as research can clarify professional concepts and categories, and reveal causal relationships and processes, it must extend well beyond simple confirmation of reigning prejudices or popular political commitments. Indeed, researchers can study the consequences of those same prejudices and commitments, affording general recognition of the trade-offs involved in, for example, understanding history through the lens of trauma or in understanding well-being in terms of uncritical participation in familiar social, cultural and political regimes.

Notes

1. A recent meta-analysis of 19 studies with a total of over 250,000 participants suggests that when sociodemographic characteristics are controlled, Indigenous peoples in the Americas have higher rates of posttraumatic stress disorder and social phobia but lower rates of depression and generalized anxiety disorder (Kiseley et al., 2017). Of course, controlling for socioeconomic background and other demographic variables obscures the fact that Indigenous populations may have higher rates of exposure to poverty and other forms of social adversity associated with mental health problems, reflecting the history of colonization and ongoing structural inequities. In Canada, for example, the rate of depression in the Indigenous population is about twice that of the general population (Government of Canada, 2006).
2. The acronym CANZUS refers to the Anglo-settler nations of Canada, Australia, New Zealand and the USA.
3. There is a long history of Europeans claiming Indigenous identity, with or without acquiring significant cultural knowledge or kinship ties (Leroux, 2019). In recent years, this has result in heated debate as some prominent authors and others who have capitalized on Indigenous identity have been excoriated for cultural appropriation (see for example: https://www.theglobeandmail.com/arts/books-and-media/joseph-boyden/article35881215/). This debate has complex implications for the continuity and evolution of Indigenous identity and for those of mixed descent, who may experience new challenges to the legitimacy of their identity (Gaudry, 2018). These struggles over identity and recognition occur in dialectic with parallel struggles in the larger society (Henzi, 2020).
4. For a history, see Milloy (2017). Motivated by the Bagot Commission Report (1842-44) in Canada, mandated by the government and carried out largely by the Churches, the IRS system was invented and exported by the USA, but the U.S. system of industrial boarding schools for AI children was dramatically reformed in the 1930s (see Szasz & Ryan, 1988).
5. There is an analogy to the role the Holocaust has come to play for secular Jews who define themselves not in terms of religion or even cultural tradition but rather based on their historical link to that genocide (Kidron, 2003). For reflections on this process at the level of national identity, see Plotkin Amrami (2018). Interestingly, McKinley and colleagues (2020) also provided data that raise similar complications for measuring HT. Specifically, respondents from Tribe A reported higher endorsement of contemporary negative impacts of historical oppression on their community for all ten items in comparison to respondents from Tribe B. And yet, Tribe A respondents reported much higher educational attainment and employment than Tribe B respondents. Why would respondents from one community who are faring better than those from another community report worse community outcomes? McKinley et al. did not address this issue, but one hypothesis is that AIs who have attained higher education have obtained additional opportunities to refine their sense of cultural identity in ways that are likely to be tapped by measures of historical oppression and trauma.

6. According to the final report of the TRC, there was occasional variation with respect to Indigenous experiences of the IRSs. For example, some IRSs served important child welfare functions (TRC, 2016a): "Montreal Lake Director of Education Julia Johnston noted that the [reserve community] was using the Prince Albert residence 'as a resource for families who are experiencing family violence and abuses'" (TRC, 2016b, p. 105). Elsewhere, the TRC reported that "in some cases, parents placed their children in the school to protect them from violence in the community" (TRC, 2015, p. 21). Finally, the TRC acknowledged that "many students have positive memories of their experiences of residential schools and acknowledge the skills they acquired, the beneficial impacts of the recreational and sporting activities in which they engaged, and the friendships they made" (TRC, 2015, p. ix). None of this is to justify or deny the indefensible abuses that occurred in and through the IRS system; rather, the point is simply that Indigenous experiences of the IRSs were varied and complex.

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