Can J Diabetes 46 (2022) 551–552

Contents lists available at ScienceDirect

Canadian Journal of Diabetes

journal homepage: www.canadianjournalofdiabetes.com

Editorial

Determinants of Wellness: A Perspective on Diabetes and Indigenous Health

Social Determinants of Indigenous Health

It is well established that Indigenous populations of all ages experience higher rates of diabetes, particularly type 2 diabetes (T2D) and gestational diabetes (1,2). The social (and sometimes structural) determinants of health (SDOH) provide a framework for describing inequities in health outcomes related to race and ethnicity, income, education, housing, built environments, food security and other factors unique to social contexts. Although SDOH disaggregated by Indigenous status have provided some insight into drivers of health inequity, caution must be exercised when findings are generalized across Indigenous peoples. Pan-Indigenous research flattens diverse cultures, communities, realities and data into a single "Indigenous" identifier. Although it may not be intentional, pan-Indigenous approaches lead to erroneous conclusions and possibly harmful interventions that risk perpetuating health inequities. In Canada, researchers must understand the differences between the 3 federally recognized Indigenous peoples (First Nations, Métis and Inuit), but, more importantly, they must understand the diversity within groups and the plurality of knowledge systems.

In a condition like T2D, it is especially important to avoid pan-Indigenous research. In Manitoba, approximately 90% of all children with T2D are self-declared First Nations, whereas rates of T2D in Métis and Inuit communities are relatively lower (2,3). The SDOH that influence T2D in First Nations youth are intuitive, including low socioeconomic status, rural location, poor sleep quality and high stress and distress levels (4,5). However, further analysis coauthored with First Nations partners emphasized mental health determinants, revealing that 59.3% of youth with T2D had a mood or anxiety disorder and 13.6% had completed or attempted suicide (compared with 25.7% and negligible for children with type 1 diabetes, respectively) (5). Indeed, focus group discussions held among First Nations youth with T2D captured the stigma and shame with the diagnosis and with daily self-management tasks leading to barriers in self-care (6). In another qualitative study, youth, caregivers and health-care providers all identified supportive relationships as the most important factor in managing lifestyle interventions for T2D, whereas poverty and food insecurity were identified as significant barriers (7). Together, the identification of SDOH that are relevant to First Nations youth, including mental health, will lead to better health-care provision and intervention strategies. Importantly, these findings reaffirm the need to accurately define the population in pursuit of viable solutions when applying SDOH frameworks to Indigenous health.

Identifying the Root Causes

When measuring SDOH for Indigenous populations, it is equally important to articulate the unique histories and ongoing impacts of colonization over time and space. Indeed, the root causes of contemporary SDOH stem directly from intersecting and intergenerational factors, including, but not limited to, systemic racism, trauma, displacement from lands, destruction of food systems, imposition of federal and provincial jurisdictions and fragmented health-care provision (5,8–10). When SDOH are studied without adequate recognition of these root causes, they simply bolster racial categories of disease and uphold indigeneity as an objective risk factor. To contextualize SDOH within Indigenous communities, it is a useful exercise to turn to the Truth and Reconciliation Commission of Canada (2015) Call to Action #18: "… to acknowledge that the current state of Aboriginal health in Canada is a direct result of previous Canadian government policies, including residential schools…" (11). If researchers understood the systems that legislated genocide, solutions arising from this research would implicate policies and structures, rather than attributing risk to indigeneity.

Determinants of Wellness

Although SDOH are widely applied to racialized and Indigenous populations, changes in clinical practice and policy have been slow to follow, and several critiques should be mentioned. First, these determinants are inherently deficit-based, defined by Western priorities, and emphasize individual-level factors (e.g. education or income) that fail to capture community-level strengths. Second, when applied within the limited scope of disease susceptibility, the SDOH typically offer a convenient explanation for discrepancies in disease prevalence in racialized groups compared with the Caucasian, affluent, well-educated or food-secure populations. Due to these limitations, the SDOH framework is only positioned to offer solutions that "close the gap" in these narrowly defined, individual-level characteristics. Indeed, a more accurate description of this framework would be the "racialized determinants of disease."

Partly due to this misguided focus, disparities in diabetes prevalence have continued to persist (5). In recognizing the limitations of the SDOH, it is worth reframing this discussion toward the social determinants of wellness. By recalibrating on health promotion, we can move beyond determinants associated with disease and toward identifying strengths associated with *mino-pimatisiwin* (i.e. living a

https://doi.org/10.1016/j.jcjd.2022.06.008

good life). Indeed, there have been repeated calls to recognize community-based strengths in countering chronic disease, including those that are not captured by current SDOH frameworks (12,13). The determinants of wellness inherently recognize elements of self-determination, identity, language and land as fundamental to health. Supporting evidence by Oster and colleagues (2014) identified a protective association between cultural continuity (as measured by Indigenous language knowledge) and T2D within First Nations in Alberta (14). By recognizing the broader determinants of wellness, research outcomes are better suited toward addressing structural drivers of health inequity, including dismantling the systems and policies that undermine self-determination and perpetuate dispossession of land, language and identity.

Research as a Determinant of Wellness

Even in recognizing the determinants of wellness, there remains a misconception that Canada's universal health care is truly universal, particularly in areas of rapid innovation. Genomic technology, biobanking and the integration of "big data" into clinical settings represents considerable potential for clinical care, disease prediction and therapeutic alignment in Canada and around the world. The stark underrepresentation and/or exclusion of Indigenous peoples in genetic and clinical research—including population health, clinical trials and basic science—represents yet another driver of health inequity (15). As research advancements move us closer toward personalized diagnostics and care, Indigenous-led research in these areas is equally important to future health equity. By recognizing research as a determinant of wellness, strengthening community research capacity and operationalizing Indigenous data sovereignty are necessary first steps (16). In practice, this means Indigenous peoples are actively engaged in innovation, using the best available tools on a foundation of cultural, technical and experiential knowledge to foster transformative solutions. Recognizing access to Indigenous-led research as a health determinant paves the way for personalized medicine approaches congruent with community-specific needs.

Trajectory of Health Equity

Health inequities begin early in life and set the trajectory for long-term disparities.

In Canada, Indigenous peoples (First Nations, Métis and Inuit) represent the fastest growing and youngest demographic in Canada, expanding by 42.5% between 2002 and 2016, with people <25 years of age accounting for 44% of that growth (17). With a young and rapidly growing population, the disparities in diabetes prevalence will continue to widen if research and clinical care maintain the status quo. To address these disparities, we must move beyond colonial definitions of the SDOH and recalibrate on the foundation of Indigenous knowledge, community strengths and data sovereignty for meaningful change.

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Acknowledgments

The author is a recipient of a Canadian Institutes of Health Research Vanier Canada Graduate Scholarship and a Prairie Indigenous Knowledge Exchange Network Graduate Fellowship in Indigenous Health.

Author Disclosures

Conflicts of interest: None.

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