Mental health and well-being among pandemic-era youth in British Columbia: Risk and protective factors

At the onset of the COVID-19 pandemic, health professionals hypothesized that a shadow pandemic of mental illness was imminent.[1] Mental health issues among adolescents have been increasing steadily in Canada since 2011.[2] Concerns regarding the impact on adolescent mental health[3] of school closures and limiting in-person contact with peers were warranted. Research indicates that adolescents were among the populations whose mental health has suffered the most during COVID.[4-8] Developmental resilience science provides insight for supporting youth mental well-being during this challenging time; more than 5 decades of evidence has demonstrated that positive experiences with families, with peers, in schools, and in communities act as protective and promotive factors for youth mental health.[9]

Data collected through the Youth Development Instrument (YDI) offer insight into pandemic-era adolescent mental health and well-being in BC.[10] The YDI is an annual self-reported survey administered in BC secondary schools that asks youth ages 15 to 17 about their mental health and well-being. The YDI also measures risk and protective factors for mental health and well-being in individual, family, peer, school, and community domains.[11] The YDI was piloted in the spring of 2020, and youth participation has increased each year since its inception. To date, YDI participation has included approximately 26 000 youth from 33 school districts and 28 independent schools across all five health regions in BC **[Table 1]**. Here we highlight key mental health and well-being challenges and opportunities elucidated by YDI research during the pandemic.

BC adolescent subjective mental well-being appears to have declined since the onset of the pandemic **[Figure]**. As well, in our latest wave of data collected from January to March 2023, 38% of youth screened positive for moderate to severe symptoms of depression, and 38% of youth screened positive for generalized anxiety disorder **[Table 1]**. YDI results suggest that some populations of youth in BC are experiencing poorer mental health and well-being than others. Analyses of 2022 YDI data indicated that youth with pre-existing mental health issues, those who report lower family affluence, and those living in rural areas of BC have poorer mental health and well-being compared with their peers **[Table 2]**. LGBTQIA2S+ youth and those identifying as female or nonbinary reported poorer mental health and well-being than those who identify as heterosexual or male. Similar to 2022 data, preliminary analyses of 2023 YDI data identified youth with pre-existing mental health conditions as having the poorest mental health and well-being of YDI participants. These findings align with extant research that suggests these groups have been experiencing poorer mental health and well-being prior to and during the COVID pandemic.[7] Thus, addressing social and structural inequities is paramount to population mental health.[12]

A motivating factor for creating the YDI was to identify malleable protective and promotive factors for youth mental health and well-being. In our analyses of 2021 YDI data, important correlates of mental health and well-being for BC adolescents included sleep, positive home experiences (e.g., supportive adults at home, positive communication with family), supportive peers, positive school experiences (e.g., school belonging,

TABLE 1. YDI mental health and well-being trends over 3 years (2021–2023).

Year	N	Depression (PHQ-8)	Anxiety (GAD-2)	High mental well-being	Six to seven positive childhood experiences
2021	2 295	40%	43%	27%	35%
2022	9 255	40%	41%	23%	37%
2023	14 596	38%	38%	20%	32%

Notes: Scores of 10 or greater on the Patient Health Questionnaire-8 (PHQ-8)[18] indicate moderate to severe depression. Scores of 3 or greater on the Generalized Anxiety Disorder-2 (GAD-2)[19] indicate generalized anxiety disorder. High mental well-being constitutes youth who score at least 28 out of 35 on the Warwick-Edinburgh Mental Wellbeing Scale[20] (i.e., 80% or more of the scale's maximum value). YDI research indicates having six or more positive childhood experiences is a protective factor for depression and anxiety and a promotive factor for mental well-being.[5]

This article is the opinion of the BC Centre for Disease Control and has not been peer reviewed by the BCMJ *Editorial Board.*

school safety), and social and emotional competencies, such as self-concept and optimism, after controlling for demographics such as racial identity, gender identity, sexual orientation, and family affluence.[13] YDI results for 2022 were similar: positive childhood experiences, such as having supportive families, peers, and teachers, were linked to significantly greater mental well-being and life satisfaction and significantly lower symptoms of depression and anxiety among youth.[14] Moreover, we found that having six or more positive childhood experiences protected youth with adverse childhood experiences, such as neglect or abuse, against poor mental health and well-being. Thus, finding ways to increase positive experiences at home, among peers, at school, and in the community may serve as an important population-level strategy for promoting mental well-being and preventing mental illness among youth. Similar to extant research conducted among adults,[15] we observed that positive childhood experiences are additive: the more of them that youth experience, the better their self-reported mental health and well-being on the YDI.[14]

Implementing evidence-based policies and programs that promote positive childhood experiences has been shown to lead to better mental health and well-being outcomes—for example, whole-school social and emotional learning programs that include student, teacher, parent/guardian, and community components.[16] Furthermore, addressing social determinants of health, such as poverty and discrimination, may lead to more positive childhood experiences and reduce the number of adverse childhood experiences, thus positively influencing mental health and well-being among youth.[17] Many of these initiatives are already underway in BC schools (e.g., the Mental Health in Schools Strategy, the sexual orientation and gender identity curriculum, the K-12 Anti-Racism Action Plan). Similar initiatives for supporting families and communities and in health care are necessary to promote mental health and well-being at a population level. ■

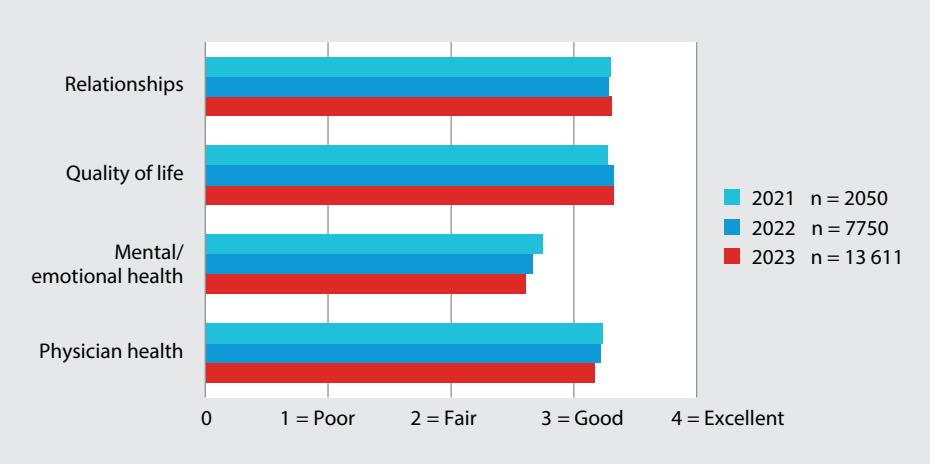

FIGURE. Subjective well-being among YDI participants (2021–2023).

TABLE 2. Subpopulation analyses of 2022 YDI data.

Subpopulation	n	Depression (PHQ-8)	Anxiety (GAD-2)
Pre-existing mental health condition	2615	73%	72%
LGBTQIA2S+	2192	64%	61%
Heterosexual	7063	33%	34%
Female or nonbinary	4654	53%	56%
Male	4583	26%	35%
Low family affluence	1461	50%	49%
Medium or high family affluence	7358	38%	39%
Rural	1102	45%	46%
Urban	8099	39%	40%

n = the number of people from the total 2022 YDI sample (N = 9255) who identified as being in each subpopulation. The table includes the proportion of each population that screened positive for moderate to severe depression on the Patient Health Questionnaire-8 (PHQ-8) or for generalized anxiety disorder on the Generalized Anxiety Disorder-2 (GAD-2).

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Shifting access to apps—availability through the College Library

The CPS app from the Canadian Pharmacists Association and the Essential Evidence Plus app are no longer available from the Canadian Medical Association after closure of the CMA Library due to a change in the organization's focus. Another medical app, Epocrates, has exited the Canadian market. College registrants with Library access may be interested in the following alternatives.

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The CPS app, a Canadian source of drug and therapeutics information, is available via the College Library at www.cpsbc.ca/registrants/library/drug-tools. The web-based version of the app and the drug interaction checker Lexi-Interact can also be accessed from that web page.

Alternatives to the decision-support apps Epocrates and Essential Evidence Plus include *BMJ* Best Practice and DynaMed, which are available via the College Library's point-of-care web page at www.cpsbc.ca/registrants/library/point-care-tools. UpToDate is available through the Divisions of Family Practice, the Specialist Services Committee, and health authorities. The alternatives are not identical to Epocrates, but there are similarities, particularly for *BMJ* Best Practice in terms of streamlined text.

Essential Evidence Plus contains decision support and content from the Cochrane Database of Systematic Reviews. Individual Cochrane reviews may be accessed via the Read by QxMD app, along with many other articles, or the entire database may be searched online at www.cpsbc.ca/registrants/library/databases.

Instructions for accessing all mobile apps through the College Library are on the Mobile Apps page: www.cpsbc.ca/registrants/library/mobile-apps. ■

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