Understanding the Health and Well-Being of Early Adolescents Throughout the World: Findings From the 2017–2018 Survey of Health Behavior in School-Aged Children

In the supplement accompanying this issue of the *Journal of Adolescent Health*, we present 10 articles from the Health Behavior in School-aged Children (HBSC)—WHO Collaborative Cross-national Study, an international research study that aims to increase understanding of adolescent health and behavior, as well as their social determinants, particularly the settings of family, peers, and school [1]. These articles tackle many of the critical issues that emerge from comprehensive analyses of the latest HBSC 2017–2018 survey, which includes data from 45 of the 50 member countries across Europe and North America [2–11]. In addition, three commentaries offer, in turn, an overview of the HBSC study; a detailed description of the critical role that young people have provided in the ongoing development, implementation, and dissemination of the findings of the HBSC; and finally, a discussion of the important role that evidence-based public policy plays in improving the health and well-being of young people [12–14].

In the first commentary, Inchley et al. give a comprehensive overview of the HBSC and how this ongoing survey, initiated in 1982, has developed to guide prevention and intervention programs for early adolescents (aged 11–15 years) in Europe and North America over time [12]. The HBSC is a school-based national cross-sectional survey with data collected in representative schools and regions within member countries through self-completed questionnaires, given in the classroom every 4 years. In the second commentary, Kelly et al. explore how youth engagement has evolved in the development of the study, with specific examples of the role that young people play in questionnaire development, data analyses, preparation of manuscripts, and the development of recommendations for public policy [13]. The HBSC was far ahead of other national and international studies in its engagement with young people. Perhaps this working group has set the standard for investigators to come on board and support what is currently being advocated by many organizations: to engage youth as partners in the development of surveys and preventive interventions [15,16]. The final commentary by Budisavljevic et al. makes a strong case in demonstrating how the results of the HBSC work have informed the policy makers charged with investing in development programs for adolescents in their respective countries [14].

In his editorial, supplement Guest Editor Dr. Jason Nagata describes how the 10 manuscripts reflect the interdisciplinary nature of the HBSC, grouping the topics into three broad areas: the social determinants of health, mental health and well-being, and social media [17]. Here, I adopt his framework to outline the articles’ contributions.

### Social Determinants of Health

The first three articles use data from 13 to 45 countries to highlight structural issues that may have an impact on adolescent health, including national wealth, family income, gender inequality, and social disadvantage [2–4]. Kern et al., using 2018 HBSC data from 43 countries, identify no uniform intersectionality effects across all countries [2]. However, when carefully looking at national context, there were some important associations: adolescents belonging to multiple disadvantaged social groups benefit from policies promoting inclusivity and equality, and those adolescents from disadvantaged social groups may experience aggravated negative effects in countries with restrictive migration policies and low income equality. Dierckens et al., using data from 17 countries with three consecutive waves of HBSC data (2010–2018), present some confusingly divergent findings, with higher levels of national income inequality being associated with more mental health symptoms [3]. Heinz et al., using 2018 HBSC data across 45 countries, attempt to clarify the role of gender inequality in adolescent health [4]. Much to our surprise, gender equality is not necessarily associated with greater health equality. For example, the greater gender equality in a country, the higher the odds that girls feel fat, report less support from families, feel school pressure, have multiple health complaints, smoke, drink alcohol, and have low life satisfaction compared with boys [4]. These findings around gender equality need further investigative work to determine the mechanism of these associations.

### Mental Health and Well-Being

The next three papers move from the broader structural issues affecting adolescent health to examine the mental health and well-being of adolescents in the HBSC countries. Walsh et al., using 2018 HBSC data from 37 countries, examine clusters of traditional risk behaviors (e.g., substance use, early sex, bullying, problematic social media use, substance use, etc.) and risk factors (e.g., low social support) and how these relate to adolescent mental well-being. Of all these factors and risks, low social support and problematic social media use were the strongest predictors of low life
satisfaction and poor mental health [5]. Cosma et al., using HBSC data across five cohorts (2002–2018) in 36 countries, monitor trends in mental health over 16-year period, reporting no evidence for a substantial decrease in mental health and well-being over time [6]. The small decline in mental health and well-being and increases in schoolwork pressure appears to be consistent with high-income countries. Löfstedt et al., using HBSC data across five cohorts (2002–2018) from 32 countries, further increases our understanding of the school satisfaction and school pressure by gender [7]. In the final analyses, boys appear to be more satisfied with school over time, whereas girls appear to feel more pressured by school. These findings raise some opportunities for the development of preventive interventions: the fewest young people of both genders were in the group that was not pressured and highly satisfied with their lives.

Two other papers in this supplement examine weight reduction and sleep patterns, which are strongly related to mental health and well-being [8,9]. Gariepy et al., using HBSC data across two cohorts (2014, 2018) from 24 countries, examine sleep patterns of adolescents, and the findings confirm the universality of insufficient sleep for adolescents: most adolescents (32%–86%) do not meet sleep recommendations for young people [8]. These findings lend further support to international public health efforts to change environmental issues such as school start times. Dzielska et al., using HBSC data over five cohorts (2002–2018) in 26 countries, examine the prevalence of weight reduction behaviors over the past 16 years [9]. Overall, 18% of girls and 10.2% of boys reported weight reduction behaviors. Since 2002, there has been a significant increase in the prevalence of weight reduction behaviors among boys, whereas the behaviors of girls have remained stable. These results may justify more attention being given to adolescent males for the prevention of disordered eating.

Social Media and Health

The final two articles in this supplement focus exclusively on social media use [10,11]. Given the unprecedented rise of social media use among adolescents, with the majority of adolescents using social media in some context, these articles provide new prevalence data across countries. Boer et al., using 2018 HBSC data from 29 countries, find that more than one third of youth report intense social media use, defined as use almost all the time throughout the day [10]. The problem, however, with this definition of intense social media use is that it may be normative in many countries. Seven percent of young people report that they meet the criteria for problematic social media use, indicated by symptoms of addiction to social media. Problematic social media use is associated with poorer well-being across all domains, including life satisfaction, mental health, school, and families [10]. Craig et al., using 2018 HBSC data from 42 countries, explore social media and cyberbullying versus cybervictimization for both girls and boys. The message of this article is clear: pervasive access to social media allows new opportunities for aggression, and the problematic use of social media poses the strongest and most consistent risk for young people. Given that young people are using social media at increased rates in all venues, we need to develop public health messaging that speaks to young people about the positive and negative aspects of social media. For good or ill, social media are the dominant milieu for today’s young people, and at its best, it offers them unprecedented opportunities to be global citizens.

Building a Case

The HBSC is a model of how consistently used data gathered over almost three decades can be used both to drive the development of country-/region-specific preventive interventions and also to inform relevant global programs of cross-national trends. The articles in the supplement use a variety of metrics, some grouping countries to focus on trends over decades, and others offer a deep dive into data specific for 2018. This supplement tackles many of the critical issues affecting young people: mental health, risk behaviors, social support, social media, gender, bullying, weight, and sleep. A limitation of this supplement, although, is that some significant issues related to morbidity and mortality in the second and third decade of life—including road traffic accidents, violence, major depressive disorders, and suicide—were not addressed. This omission may be attributed to the age range of the study being 11–15 years, but increasingly, there is a need to focus on the impact of early adolescence on late adolescence and young adulthood. In spite of these limitations, the HBSC has played a major role in informing national and international policy related to adolescent health for over three decades. In their commentary, Budisavljevic et al. highlight how data from the HBSC have made a strong case for countries investing resources in supporting the second decade of life [13]. A recent supplement in the Journal of Adolescent Health entitled, “An Investment Case for the Rights of Adolescents,” provides additional evidence-based support for investing resources in adolescent health and well-being, matching well with the HBSC’s mission to drive investment with data [18].

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References


