

## Hot News

### Mental health crisis in the youth and rebound in sexually transmitted infections

There is a crisis of emotional well-being and mental health in adolescents and young people in developed countries (Piao et al. *Eur Child Adolesc Psychiatry* 2022;31:1827-45). Although the COVID-19 pandemic has unveiled the high rate and severity of mental disorders in youth, the problem comes from before. What is worrisome, it appears to be getting worse, according to recent CDC data (CDC, 2023).

Alongside the deterioration of young people's mental health, there is an increase in sexually transmitted infections. Although a drop was recognized in 2020 due to the unprecedented lockdown and social isolation mandates during the 1<sup>st</sup> year of the COVID-19 pandemic, data since 2021 have shown a significant surge of cases of syphilis, gonorrhea, and chlamydia (CDC, 2022).

In 2020, overdose deaths, accidental or intentional for suicidal purposes, were the fourth leading cause of global mortality in the United States, after cardiovascular diseases, cancers, and COVID-19 (Ahmad and Ander-

son. *JAMA* 2021;325:1829-30). Among young people, these deaths were the leading cause of mortality, ahead of neoplasms, and congenital diseases (Tanz et al. *MMWR* 2022;71:1576-82). The frequency and severity of mental disorders and depression has growth in youth especially since the beginning of the new millennium (Mojtabai et al. *Pediatrics* 2016;138:e20161878).

Suicide has become the first cause of death in 15-25 year olds in many developed countries (Fazel and Runeson. *N Engl J Med* 2020;382:266-74). In the United States, teen deaths have been on the rise for one decade. At present, suicides and gun homicides have surpassed congenital diseases and traffic accidents as leading cause of youth death (Woolf et al. *JAMA* 2023;329:975-6).

There is no doubt that spreading of new internet technologies and applications has determined that children and adolescents need to co-construct their reality at an earlier age (Subrahmanyam and Smhel. *Springer* 2011;59-80). In an unprecedented manner, the online input is increasingly influencing personality traits and behaviors, classically determined only by traditional offline experiences. This new phenomenon has been associated to an expanded spectrum of traits

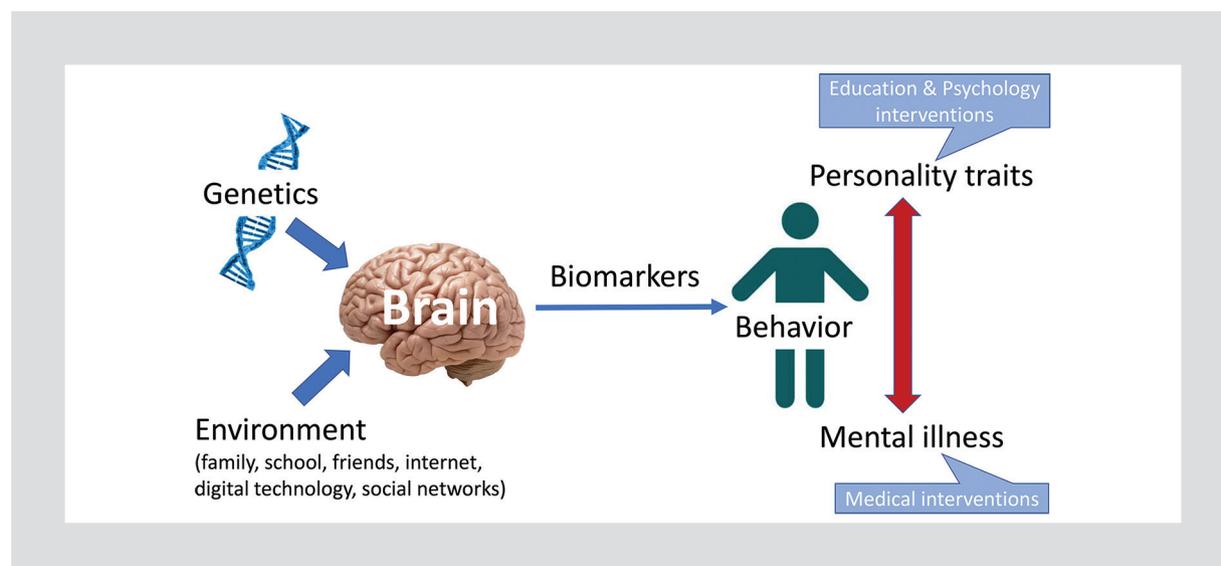
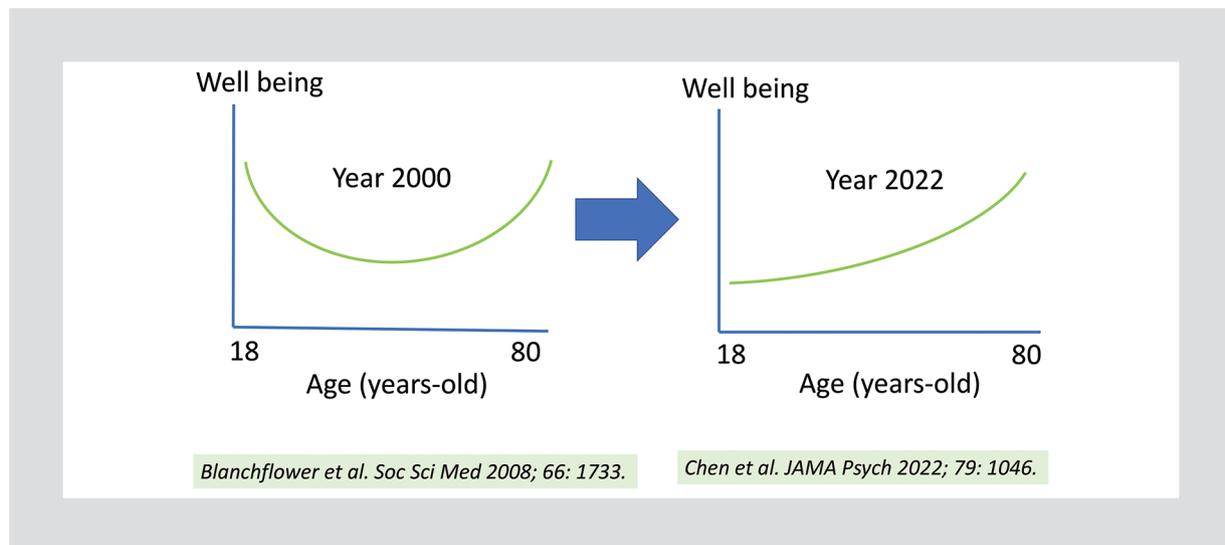


Figure 1. Determinants, diagnosis, and management of emotional well-being and mental health disorders in adolescents.



**Figure 2.** Changes in well-being in US adults.

and behaviors, which are often difficult to assign to variants within normal ranges or clearly be considered as pathologic. As shown in Figure 1, while education and psychological interventions should be tried in the first case and be inclusive, when we confront illnesses, the approach is throughout medical treatment. When possible, the recognition of biomarkers may help to find the distinction between normal variation and pathologic personality/behavior.

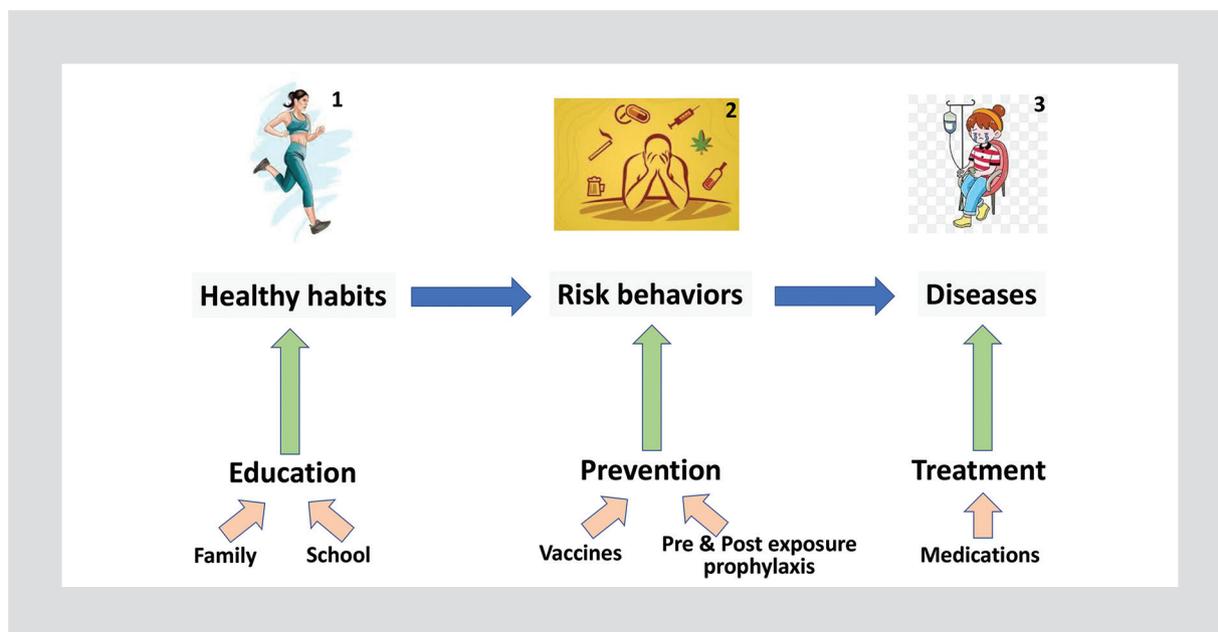
While the digital technology has enabled an exponential development in many areas of life (social, educational, health, and leisure, among others), it has opened the door to several relational risks, including cyberbullying, sexting, online grooming, and online abuse. Moreover, other risks linked to the inappropriate use of internet include nomophobia, online gambling, or pornography (González-Cabrera and Machimbarrena, Springer 2023;11-2). Efforts to ensure an adequate use of internet are particularly needed for those born from 2010 onwards, the so-called alpha generation (McCrindle and Fell, Hachette 2021; chapter 2). This is the one that follows the Z generation, the first that really grew up with the digital technology.

The University of Harvard has published a study of emotional well-being in a representative sample of 8618 US adults (Chen et al. JAMA Psychiatry 2022;79:1046-7). Participants answered a validated questionnaire on personal satisfaction in six areas of life, including health, character, social relationships, work, life purpose, and economic resources. The results have been impressive and worrying (Fig. 2).

Unlike what was recognized two decades ago, the degree of personal satisfaction among the youngest was the lowest of all. It is no longer bimodal or U-shaped, that is, maximum in young and old; and falling into the middle ages of life (Blanchflower and Oswald. Soc Sci Med 2008;66:1733-49). The authors conclude that protecting the mental health of young people should be considered a national emergency.

Prof. Tyler VanderWeele, who leads the group at the Harvard School of Public Health, has proposed a series of measures to address in a multidisciplinary way the problem of the worsening of emotional well-being in adolescents and young people. The term “human flourishing” has been coined for the set of initiatives that tend to personal fulfillment and the achievement of a state of full satisfaction (VanderWeele. PNAS 2017;114:8148-56). He has identified six key domains for flourishing: Happiness and satisfaction, physical and mental health, meaning and purpose, character and virtue, and close social relationship. Then, he has proposed four areas of development to enhance flourishing: family, work, education, and religious experience in community.

It might seem that Harvard’s proposals are nothing new and seem to rediscover common sense aspects. However, the truth is that learning and social pressure on adolescents and young people in developed societies is today subject to the principles of the postmodernist culture. An unprecedented existential vacuum is generated in individuals belonging to new generations. Along with this, addiction to internet and social networks paradoxically produces more loneliness and



**Figure 3.** A shift in the medical paradigm, moving from treatment to prevention, and promoting education in healthy lifestyle.

detachment from others, if not violence. VanderWeele points out that it is necessary to educate and rediscover the meaning of life and the practice of human virtues, especially by the youngest (*VanderWeele. PNAS 2017;114:8148-56*).

Together with the Gallup organization, the Harvard group will begin this summer a large international study that will include a total of 240,000 individuals from 22 countries who will be followed for 5 years. It aims to establish the degree of emotional well-being and mental health in different regions of the planet, as well as the determining factors adjusted for age, sex, family situation, economic development, cultural environment, and religious beliefs. The study will identify those areas on which educational, psychological, and social interventions could be most beneficial.

All the discussions above are in line with a paradigm shift currently seen in medicine, moving from being therapeutic alone to prioritizing prevention strategies, and especially encouraging education for health (Fig. 3). This vision has already matured and is being implemented for certain medical conditions, such as cardiovascular disease using the Life's Essential 8 call (*Lloyd-Jones et al. Circulation 2022;146:e18-e43*), but largely remains to be considered for many other diseases, including sexually transmitted infections.

Vicente Soriano<sup>1</sup> and Joaquín González-Cabrera<sup>2</sup>

<sup>1</sup>UNIR Health Sciences School and Medical Center, Madrid; <sup>2</sup>UNIR

Education School, Oviedo, Spain

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