



# The Mental Toll of Being Connected

What kind of impact is social media having on adolescent health?

## Key messages:

- Adolescence is a time when young people establish habits, certain health behaviours and lifestyles that shape later life outcomes, however, there is not a wide range of research on adolescents' health.
- The number of adolescents dealing with mental illness, specifically depression, is growing. Depression at this young age can have implications on one's future mental and physical health.
- Social media use among adolescents has resulted in higher levels of unhappiness, anxiety and depression among young people.
- Students should learn in school how to navigate social media, and be educated about mental health and how to recognise when either themselves or someone they know is suffering. Awareness also needs to be drawn to how they can seek support.
- More research focused on adolescent health and mental health is needed to understand the long-term impact of health in adolescence and to contribute to the establishment of preventative programmes to help reduce long-term costs.

## Author:

Nicoletta Balbo

## Editor:

Emily Lines

## › Introduction: The importance of adolescent health

Adolescence is a significant time in one's life. This is when young people begin to establish habits, certain health behaviours and lifestyles. Due to puberty, they also begin to undergo significant physical, biological and neurological changes that have an impact on their decision-making and cognitive behaviours (Harris and McDade, 2018). Despite this being a critical time, the research available on adolescent health, particularly focused on European youth and its societal implications today and in the future, is scarce.

Even if we know very little about this topic, some evidence does exist. For instance, Michael Shanahan has shown the importance of the impact of adolescents' health even before a disease manifests itself. He found that social stressors can alter genetic expression later in adult life, which results in greater risk for inflammatory illnesses (e.g. asthma), cardiovascular disease and depression (Shanahan, 2013). In a forthcoming study from Shanahan, Potente, Chumbley and Harris, they focus on the role of low educational levels, smoking and high body mass index (BMI) during adolescence on the risk of having a future heart attack. Again, their work shows the importance of the pre-disease state and the gene environment interactions with respect to the foundations of health performance later in life.

This policy brief focuses on one specific aspect of adolescent health: What is already known throughout the various disciplines and what still needs to be investigated about mental health and illness.

## › Depression among adolescents – What are the long term consequences?

Figure 1 illustrates the percentage of 15-24-year-olds suffering from moderately severe to severe depression. The World Health Organization (WHO, 2018) found that depression and anxiety disorders are some of the most common mental illnesses among young people, and almost half of all mental health disorders begin before or during adolescence. As seen in Figure 1, females tend to suffer from depression more than males. Depression suffered during these ages can lead to recurring depression in adulthood. This was found in several studies focused on the United Kingdom (UK). In a 2009 report, emotional problems faced in adolescence were associated with increased severity of emotional problems during adulthood in all three examined cohorts. Respondents from the youngest cohort (1970) that had experienced emotional problems in adolescence had up to three times the chances of experiencing worse emotional

problems as an adult (Richards & Abbott, 2009). A similar study by Ploudbidis et al. (2017) also compared cohorts from 1958 and 1970 and found that those with conduct and emotional problems at age 16 were more likely to have more psychological distress symptoms at age 42.

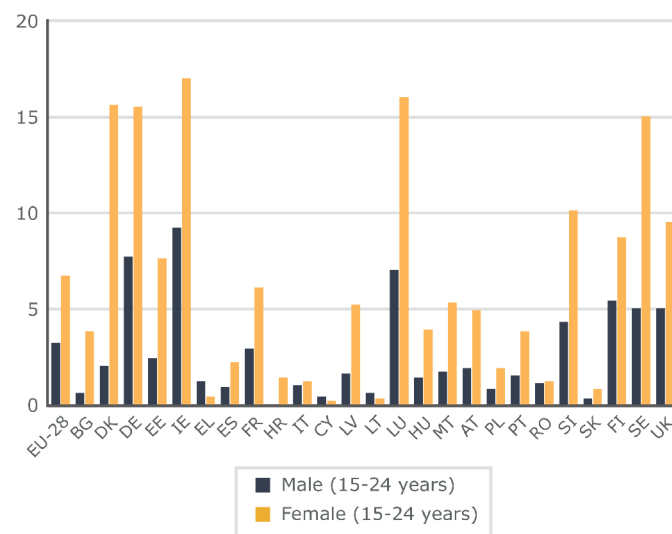


Figure 1: Per cent of males and females, ages 15-24, suffering from moderately severe to severe depression  
Source: Eurostat, 2017

Depression at a young age can also have other physical health implications later in life. Research has found a direct correlation between individuals that experienced depressive symptoms in adolescence and the risk of obesity and high blood pressure in adulthood. The feelings of depression may adversely affect one's food choices and physical activity, which can lead to the development of habits that contribute to an unhealthy lifestyle and the development of cardiovascular disease (Srinivas et al., 2018).

## › What role does social media play?

Social media is an important way to communicate in our everyday life. But, it can also have a negative impact, especially on younger users. During this time when adolescents are developing and trying to decide who they want to be, it can be difficult to navigate the pressures to fit in at school. Being connected all the time makes it easy to see what everyone is doing, even when not in school, creating a new level of pressure to project an exciting and cool lifestyle. The challenge is not only for adolescents to figure out how to handle these constant pressures, but adults also need to learn how to help adolescents cope with social media since this is new territory for all.

Research thus far in this field has mainly been in the UK or United States (US). There have been no conclusive findings that draw a direct link or correlation between mental health and social media use. However, there are published studies

that support the idea that there could be a connection.

A study by Booker, Kelly and Sacker (2018) found that increased social media usage was associated with a decrease in happiness among adolescents aged 10-15 (Figure 2). As the children aged, they also tended to increase their social media usage. Among adolescent girls, being more active on social media at the age of 10 was connected with worsening wellbeing with age. The same association was not found for adolescent boys (Booker, Kelly & Sacker, 2018). These findings support the data from Figure 1, which shows more girls suffering from depression than boys. Their study highlights the strong variance between boys and girls, shedding light on how the two genders may face different types of pressures from their peers and society.

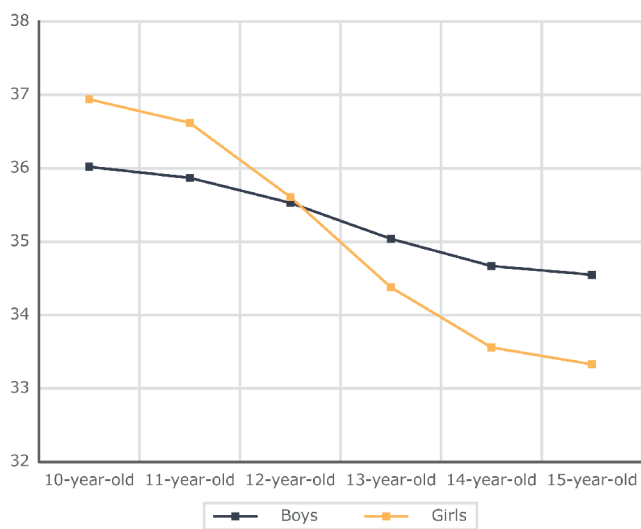


Figure 2: Happiness levels among 10- to 15-year-old girls and boys. The higher the score, the higher the level of happiness. Source: Booker, Kelly and Sacker, 2018.

In a report from the UK Royal Society for Public Health (RSPH), it stated that rates of anxiety and depression among young people have increased 70% in the last 25 years. Young people in their survey said that four out of five social media platforms (Twitter, Facebook, Snapchat and Instagram) make their feelings of anxiety worse (RSPH, 2018). Although these platforms make it easier for users to stay in touch and share their lives, it also makes it easier for them to compare themselves or be exposed to cyberbullying. This can lead to feeling inadequate, thinking one's life is not interesting, or that he or she is missing out.

The concern of missing out can cause adolescents to be glued to their devices. One in five respondents in the RSPH study said they wake up in the middle of the night to check their phones, just to make sure they did not miss any messages. As an adolescent, sleep is important to help with brain development and around one to two hours more of sleep is recommended at this age. Through the use of social media on cell phones, laptops and tablets at night,

the quality of sleep is affected since researchers argue the LED lights from the screens hinder the brain's ability to naturally process the feeling of sleepiness and the release of melatonin, the sleep hormone. The result is a need for more time to fall asleep, which leads to less sleep, and waking up in the middle of the night also reduces sleep quality (RSPH, 2018). This lack of quality sleep has a significant impact on one's mental health. A study by Li, Starr and Wray-Lake (2017) followed a group of adolescents for a decade and found that individuals with sleep problems have a greater risk of developing depression, likely because those that have trouble sleeping are also more anxious. These individuals tend to develop more anxiety when their problems sleeping persist, even experiencing anxiety about not being able to sleep. Lack of sleep is also a contributing factor to mood instability and a decreased ability to cope with stress. It is apparent that lack of sleep is the start of a vicious cycle that can lead to developing depression. Therefore, it is inherent that adolescents learn to disconnect, especially at night, to ensure a quality night's rest.

From looking at these studies, it is clear that adolescents should already begin to learn how to cope and address any mental health challenges they may face. To do so, they first need to have a general understanding of mental health. They also need help to understand how to navigate the medical system to seek professional assistance. They should learn there is nothing wrong with asking for help if he or she is suffering from a mental health condition (i.e. de-stigmatization). Klaas (2018) found that some individuals that have dealt with a mental health issue view it as a positive event and something that has allowed them to grow. Educating students early on and providing them with easy access to treatment, including more direct access to doctors, may help them to recover more effectively or better cope with their depression. This education would also help society better understand mental illnesses and be a more supportive community to those suffering.

### › What we still do not know

The use of social media has expanded during the 21<sup>st</sup> century, but the long-term effects of using such platforms is yet to be determined. As mentioned above, it cannot be said with certainty that social media usage is directly linked with mental health. Most of the studies that have been carried out on adolescent health and its impact on later life are based on longitudinal studies from the time before social media. This means that in the future, the impact of social media on health, specifically mental health, in adulthood could be significantly different. For example, the cohorts in the study by Ploudbidis et al. (2017) were not exposed



to social media as adolescents, so the number of adults that will suffer from emotional or psychological distress in the future may increase. Terms to describe the influence of social media on mental health have begun to pop up, such as 'Facebook depression' (RSPH, 2018). However, what is necessary is more longitudinal studies throughout Europe, not just in the UK or US, that ask more comprehensive questions about adolescent health and health in adulthood. It will take time to be able to fully understand what impact these social media platforms have on the mental health of those who have only known a world where they exist.

As the generations of original social media users begin to have their own children, studies will also need to be conducted to see how these parents educate their children about social media and how they determine when and how often their children can use these platforms. Their past experience may help prevent a continued increase in unhappiness levels among adolescents or the number of those suffering from depression.

### › Policy recommendations

- More funding is needed for longitudinal studies covering a range of European countries on health and mental health in adolescence and its impact in adulthood. This is important to understand the long-term impact of health in adolescence and can help lead to the creation of preventative programmes that may reduce long-term costs.
- Young people need to be educated about how to use social media in a healthy manner, as well as those in contact with them (e.g. parents and teachers). By teaching them, adolescents may be able to better handle all of the information they see and know where to turn if they need help.
- Policymakers should be open to working with social media platforms to establish guidelines for adolescents on how to use their products (e.g. creating alerts after much time has been spent on the platform). It is also important for policymakers to work with stakeholders from a variety of areas to create a holistic approach since adolescents are influenced by a wide range of factors.
- More information should be provided to adolescents, both online and in the classroom, about mental health and how to seek help if needed. By reaching out to students early on through the various environments they spend their time in, then the long-term impact of dealing with depression at a young age may not be as strong or negative.
- Finally, adolescents should be given more direct access to their medical doctors and psychologists. They need to know that they have a safe space where they can openly discuss how they are feeling, both physically and psychologically.

### References

- Booker, C. L., Kelly, Y. J., & Sacker, A. (2018). Gender differences in the associations between age trends of social media interaction and well-being among 10-15 year olds in the UK. *BMC Public Health* 18: 321.
- Eurostat (2017). Severity of current depressive symptoms by sex, age and income quintile [hlth\_ehis\_mh2i]. Retrieved from: [https://ec.europa.eu/eurostat/web/products-datasets/-/hlth\\_ehis\\_mh2i](https://ec.europa.eu/eurostat/web/products-datasets/-/hlth_ehis_mh2i).
- Harris, K. M. & McDade, T. W. (2018). The biosocial approach to human development, behavior, and health across the life course. *RFS: The Russell Sage Foundation Journal of the Social Sciences* 4(4): 2-26.
- Klaas, Hannah (2018). Experiencing burn-out or depression can also bring personal growth in the long run. NCCR LIVES. Retrieved from <https://www.lives-nccr.ch/en/actualite/experiencing-burn-out-or-depression-can-also-bring-personal-growth-long-run-n3034>.
- Li, Y. I., Starr, L. R., and Wray-Lake, L. (2017). Insomnia mediates the longitudinal relationship between anxiety and depressive symptoms in a nationally representative sample of adolescents. *Depression and Anxiety* 35(6): 583-591.
- Ploubidis, G. B., Sullivan, A., Brown, M., and Goodman, A. (2017). Psychological distress in mid-life: Evidence from the 1958 and 1970 British birth cohorts. *Psychological Medicine* 47(2): 291-303.
- Richards, M. and Abbott, R. (2009). *Childhood mental health and life chances in post-war Britain*. London: Sainsbury Centre for Medical Health, The Smith Institute, UNISON, & UK Medical Research Council.
- Royal Society for Public Health (2018). *#StatusofMind: Social media and young people's mental health and wellbeing*. London: Royal Society for Public Health. Retrieved from <https://www.rsph.org.uk/our-work/campaigns/status-of-mind.html>.
- Shanahan, M. (2013). Social genomics and the life course: Opportunities and challenges for multilevel population research. In: L. Waite and T. J. Plewes (Eds.) *New Directions in the Sociology of Aging* (pp. 255- 276). Washington, D.C.: National Academies Press.
- Srinivas, S., Rajendran, S., Anand, K., and Chockalingam, A. (2018). Self-reported depressive symptoms in adolescence increase the risk for obesity and high BP in adulthood. *International Journal of Cardiology* 269: 339-342.
- World Health Organization (2018). *Adolescent mental health in the European Region*. Copenhagen: WHO Regional Office for Europe. Retrieved from: <http://www.euro.who.int/en/health-topics/noncommunicable-diseases/mental-health/data-and-resources/fact-sheet-adolescent-mental-health-in-the-who-european-region>.

### Imprint

**Publisher:** Max Planck Society for the Advancement of Science on behalf of the collaborative network "Population Europe"

**Technical Coordination:** Emily Lines

**Layout:** The Brettingshams GmbH, Berlin

**Photo Credit (Cover Page):** ©bowdenimages – iStock

**Print:** Newprint blue GmbH, Berliner Str. 13-14, 10715 Berlin  
**ISSN:** 2512-6164

**Contact:** Population Europe Secretariat, Markgrafenstraße 37, 10117 Berlin, Germany

**Phone:** +49 (0)30 2061 383 30, **Fax:** +49 (0)30 2061 383 50

**Email:** [office@population-europe.eu](mailto:office@population-europe.eu)

**Web:** [www.population-europe.eu](http://www.population-europe.eu)

The opinions of the authors do not necessarily reflect those held by the publisher or the editorial office. Reprints of any part of the articles are permitted as long as the original authors and publishers are given credit. Please provide us with a specimen copy.