

# AN ACCELERANT ON THE FIRE: SOCIAL MEDIA, SMARTPHONES AND YOUNG PEOPLE'S MENTAL *health*

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## EXECUTIVE SUMMARY

In Australia, as in other Western countries, there has been a sharp deterioration in adolescent mental health over the last decade. Around 40% of young women, and 20% of young men, now have an anxiety disorder. Around 20% of young women, and 10% of young men now have an affective disorder such as depression. These patterns in Australia are mirrored in other parts of the Western world.

In the search for explanations and solutions, there has been a particular focus on the adverse effects of youth-focused social media in the age of the smartphone. Rates of anxiety and depression amongst teenagers increased rapidly from about 2012 onwards, when smartphones began to be ubiquitous and young people's social lives became more and more based on

digital forms of communication. However, data from Australia and elsewhere on teenage self-harming behaviour contradicts the thesis that the advent of youth-focused social media apps caused a sudden increase in adolescent mental health problems. Rather, the evidence is that it was an accelerant to an already raging fire. Rates of self-harming behaviour have been rising rapidly ever since the mid-1990s, and other indicia of adolescent mental health problems have also increased significantly over recent decades.

Prominent amongst the explanations for this must be the growth in the number of children who experience family instability or who are not well-integrated socially. These are dimensions of relational poverty for children and young people that have profound impacts upon their well-being.

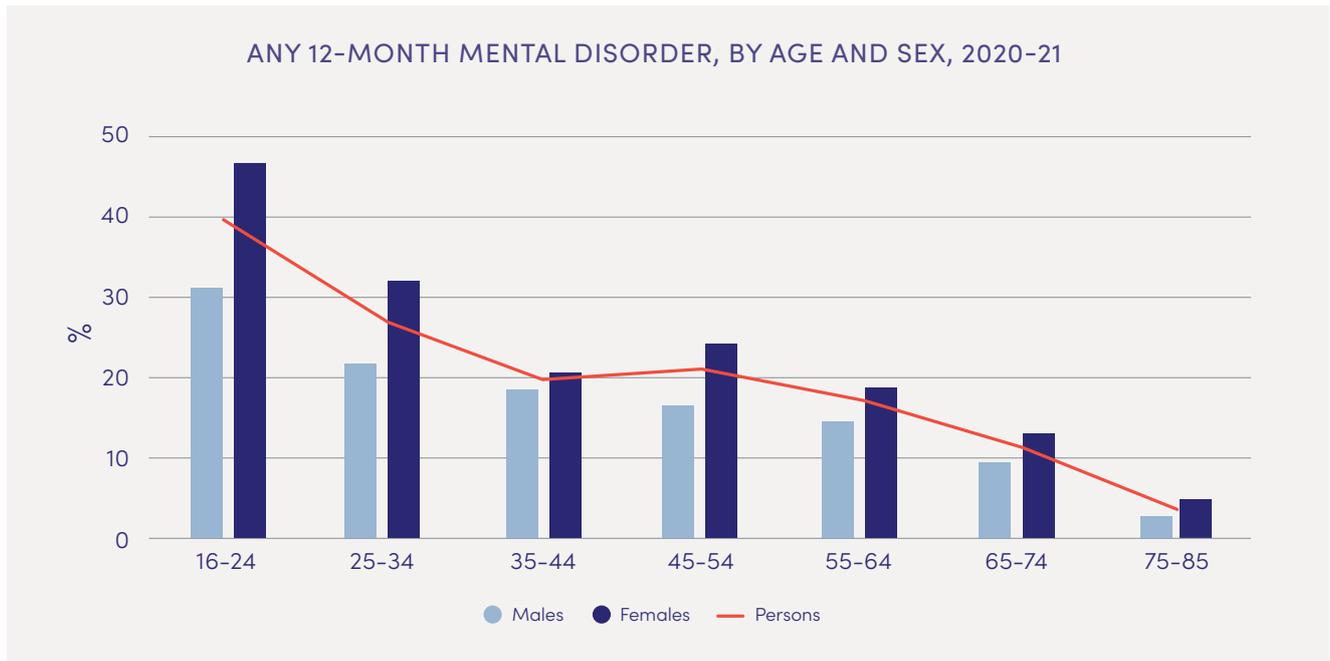
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## HIGH RATES OF DISTRESS AMONGST YOUNG PEOPLE IN AUSTRALIA

Most people who work with children, adolescents and young adults are well aware of the sharp decline in the mental health of younger generations. In particular, it has been the experience of countries across the Western world that there has been a notable increase in levels of anxiety and depression over the last decade or so.



**FIGURE 1: MENTAL DISORDERS IN THE LAST 12 MONTHS, AUSTRALIA**



Source: Australian Bureau of Statistics, National Study of Mental Health and Well-being 2020-21

Young people aged 16-24, especially females, are much more prone to a mental disorder than any older age group, according to a survey by the Australian Bureau of Statistics in 2021.<sup>1</sup>

41% of young women and 21% of young men in this age group had an anxiety disorder. 19% of young women and 9% of young men in this age group had an affective disorder, such as depression, or were living with a bipolar disorder. Rates of high and very high psychological distress were also much greater in those under 35 years of age than among older people.

Headspace, the mental health charity that supports children and young people, has similarly found very high rates of distress among young people. A 2018 survey of

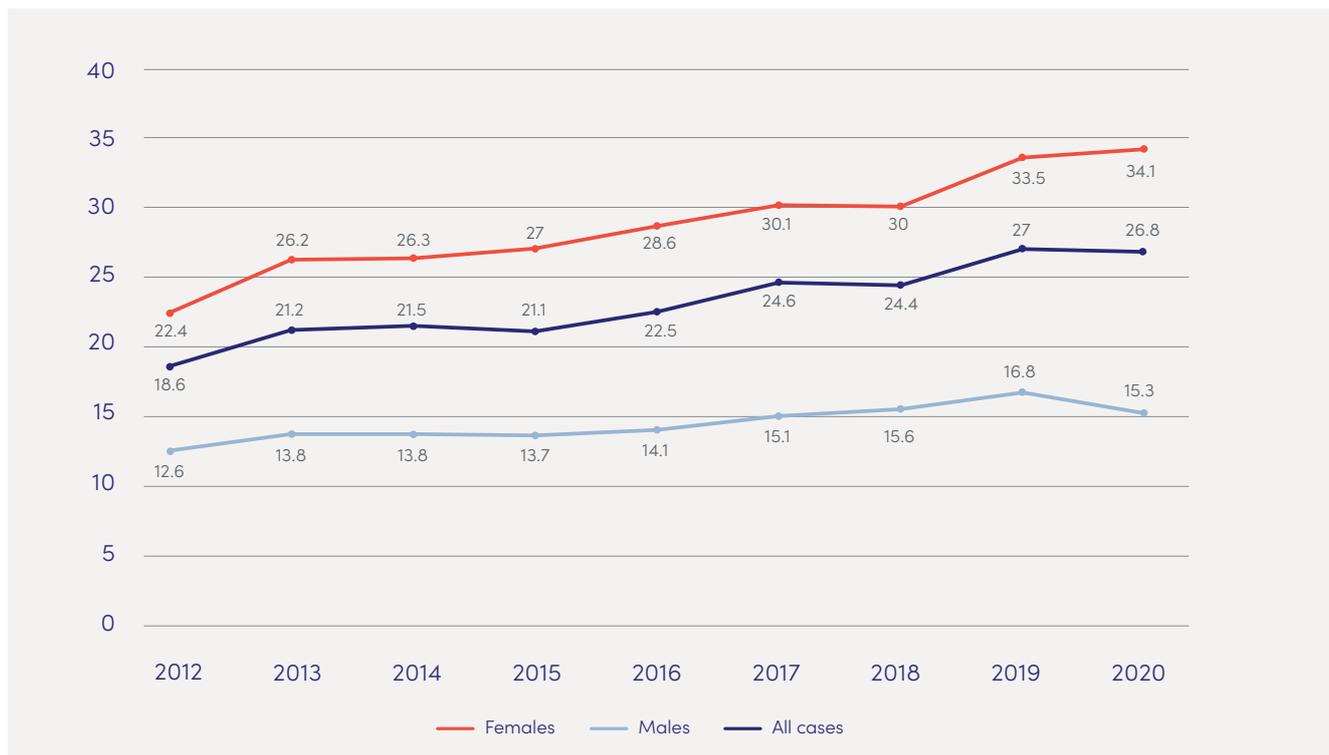
**MENTAL DISTRESS AMONG YOUNG PEOPLE IS INCREASING QUITE RAPIDLY. A 2018 SURVEY FOUND 38% OF YOUNG WOMEN AND 26% OF YOUNG MEN HAVE HIGH PSYCHOLOGICAL DISTRESS**

over 4,000 young people aged 12-25 years found 38% of young women and 26% of young men have high or very high psychological distress - an average of 32%.<sup>2</sup> The highest rates were among 18-21 year olds (38%). 44% of young women in this age group, and 31% of young men, reported high or very high levels of distress.<sup>3</sup>

Mission Australia's annual survey of 25,800 of young people aged 15-19 provides important longitudinal data. The researchers found a substantial increase in the proportion of young people reporting psychological distress in 2020 compared with 2012.<sup>4</sup>

<sup>1</sup> <https://www.abs.gov.au/statistics/health/mental-health/national-study-mental-health-and-well-being/latest-release>. <sup>2</sup> Headspace, *National Youth Mental Health Survey 2018* at [headspace.org.au](https://headspace.org.au). <sup>3</sup> *Ibid*, p.12. <sup>4</sup> Mission Australia and the Black Dog Institute, *Psychological Distress in Young People in Australia 2012-2020* (2021) p.20.

**FIGURE 2: PSYCHOLOGICAL DISTRESS IN YOUNG PEOPLE AGED 15-19, BY GENDER, 2012-2020**



Source: Mission Australia and the Black Dog Institute (2021).

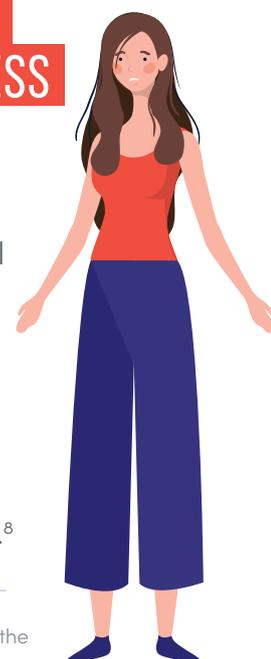
Twice as many females as males reported psychological distress. Furthermore, females had a much higher increase in such distress than males. Between 2012 and 2020, the rates for young women rose from 22.4% to 34.1%, an increase of 11.7%. For males, the increase was from 12.6% in 2012 to 15.3% in 2020, an increase of 2.7%.<sup>5</sup> Some of this could be due to a greater willingness to acknowledge mental health problems over the last few years, or a reduction in ability to cope with periods of difficulty. However, the rate of increase is such over only 8 years that these do not seem sufficient explanations.

The data also illustrates that little of this increase between 2012 and 2020 can be attributed to Covid lockdowns. Indeed, the rate of psychological distress was actually higher for males immediately before Covid in 2019 than it was at a time when in-person socialisation was most restricted during the pandemic.<sup>6</sup> There

was an increase in distress for females between 2019 and 2020, but not nearly as great as the increase between 2018 and 2019. While it is widely assumed that Covid lockdowns had an adverse impact on the mental health of young people, across the world the evidence on this is very mixed.<sup>7</sup>

**TWICE AS MANY FEMALES AS MALES REPORTED PSYCHOLOGICAL DISTRESS**

Not only is there objective evidence from survey data that Australian young people’s mental health is getting worse, that is also their own perception. A Headspace survey of over 4,000 young people in 2018 found that 73% of respondents aged 22–25 thought that young people’s mental health was getting worse.<sup>8</sup>



<sup>5</sup> Ibid, p.20. <sup>6</sup> Ibid, p.19. <sup>7</sup> Marlee Bower et al, 'A Hidden Pandemic? An Umbrella Review of Global Evidence on Mental Health in the Time of COVID-19' (2023) 14 *Frontiers in Psychiatry*. <https://doi.org/10.3389/fpsy.2023.1107560>, p.14. <sup>8</sup> Headspace, above n.2.

## RATES OF TEENAGE SUICIDE IN AUSTRALIA

In 2022, 30.9% of all deaths in young people aged 15–17 years were by suicide. 32.4% of all deaths in those aged 18–24 years were from suicide. This is an increase from 6.5% and 23.9% respectively in these age groups in 2001.<sup>9</sup>

Suicide rates amongst young people aged 15–19 also show a gradual increase amongst females in this age group, whereas there is no similar pattern amongst males. Between 1995 and 2005, rates of female suicide in this age group were between 3.6 per 100,000 (2005) and 6.4 (2000). Between 2012 and 2022 they were between 5.1 (2016) and 8.3 (2012). The trend is one of a substantial increase on average from 2010 onwards.<sup>10</sup>

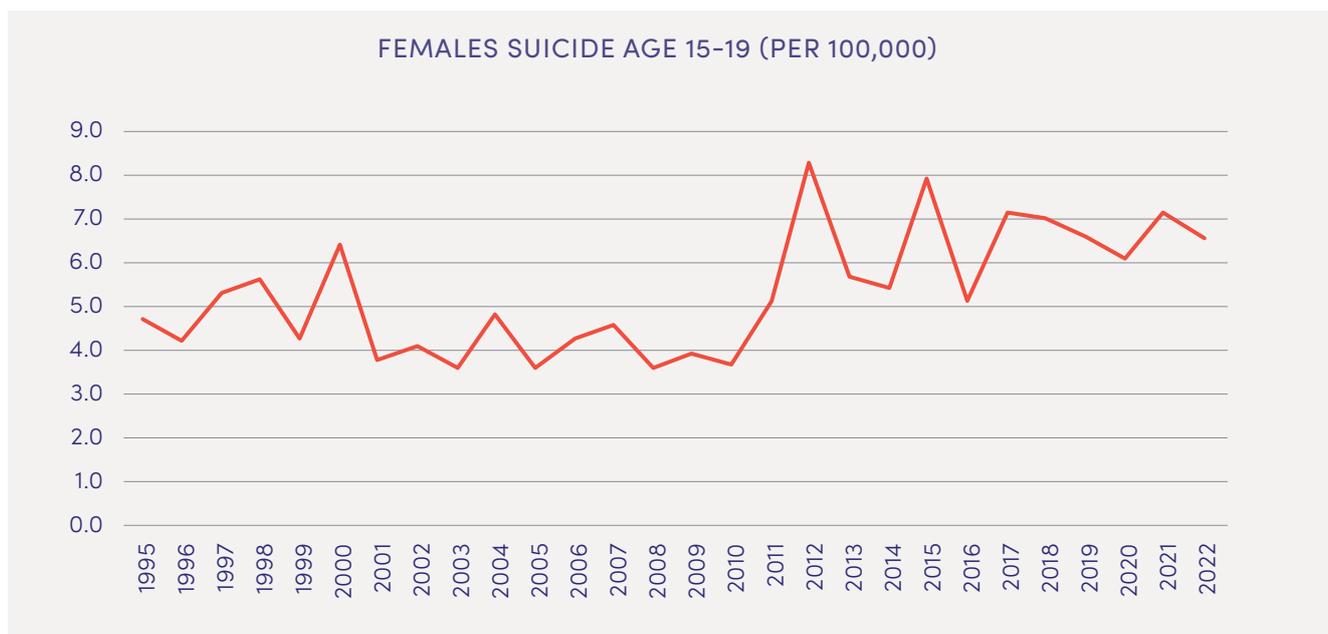


## TEENAGE MENTAL HEALTH IN THE USA

Data from the USA demonstrates similarly concerning trends. In February 2023, the US Centers for Disease Control and Prevention (CDC) published data from its Youth Risk Behavior Survey which was collected in 2021.<sup>11</sup> It showed a substantial increase in feelings of sadness or hopelessness for American school students over the previous ten years. As in Australia, the increase in prevalence has been greatest among adolescent girls.<sup>12</sup>

The survey question asked about whether, in the last year, high school students felt so sad or hopeless almost every day for at least two weeks in a row that they stopped doing their usual activities. In 2011, 36% of females responded affirmatively to this question and 21% of males. In 2015, the rates were nearly 40% for females and over 20% for males.<sup>13</sup> In 2017, the rates were 41% for females and 21% for males.<sup>14</sup> By 2019, the last year before the pandemic, the

**FIGURE 3: TEENAGE FEMALE SUICIDE, AUSTRALIA 1995-2022**



Source: Australian Institute of Health and Welfare (2023).

<sup>9</sup> Australian Institute of Health and Welfare, *Suicide and Self-Harm Monitoring* (2023) <https://www.aihw.gov.au/suicide-self-harm-monitoring/data/populations-age-groups/suicide-among-young-people> <sup>10</sup> Data derived from Australian Institute of Health and Welfare, *ibid*, Table NMD S2. <sup>11</sup> CDC, *Youth Risk Behavior Survey Data Summary & Trends Report 2011-2021* (2023). <sup>12</sup> *Ibid*, p.61. <sup>13</sup> CDC, *Youth Risk Behavior Surveillance – United States, 2015*, (2016) p.12. <sup>14</sup> CDC, *Youth Risk Behavior Survey - Data Summary & Trends Report: 2007-2017* (2018) p.48.

rates had risen to 47% for females and 27% for males, a substantial increase in just two years.<sup>15</sup> By 2021, 57% of females and 29% of males answered this in the affirmative. This would appear to indicate not only a worsening situation over time, but that the speed of deterioration is also increasing. Some of the increase in 2021 could be a Covid effect, but the substantial increase during Covid is not so different from the huge rise between 2017 and 2019 for females.

As in Australia, in the United States there has also been an increase in female suicides and suicide attempts over time. In 2009, 17% of female students aged 14–18 had seriously considered suicide. By 2019 this had risen to 24%.<sup>16</sup> Rates for males considering suicide were much lower, although there was an increase from 10.5% to over 13% in the same decade.

Between 2019 and 2021, the rate increased from 24% to 30% for female students, while for male students it increased only marginally, from 13.3% to 14.3%. Similar and substantial increases can be seen in the

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data on girls who have made a suicide plan and in suicide attempts. In 2011, 15% of girls reported making a suicide plan. By 2021, this had risen to 24%. The rate for males had hardly changed (11% to 12%).<sup>17</sup> In 2011, 10% of females attempted suicide. By 2021, this had risen to 13%. The rate for males increased only marginally from 6% to 7%.<sup>18</sup>

It is evident that both in Australia and the United States, the deterioration in teenage mental health ought to be a cause of great concern; but predominantly, the focus needs to be on the issues for teenage girls.

## THE DEBATE ABOUT SMARTPHONES AND SOCIAL MEDIA

For a long time now, there have been calls for governments to act in response to this sharp deterioration in young people's mental health, not least in providing more taxpayer funding for mental health services.<sup>19</sup> Important as it is to increase access to, and availability of, mental health supports, a public health approach would also seek to understand what is



<sup>15</sup> CDC, *Youth Risk Behavior Survey – Data Summary & Trends Report: 2009–2019* (2020) p.61. <sup>16</sup> Ibid, p.62. <sup>17</sup> CDC, above n. 11 at p.66. <sup>18</sup> Ibid, p.68. <sup>19</sup> See e.g. Australian Psychological Society: <https://psychology.org.au/about-us/news-and-media/media-releases/2022/bleak-new-figures-confirm-depth-of-mental-health-c>

driving this increase in clinically significant anxiety, depression and other mental health problems amongst children and young people. On this issue, a vigorous debate has emerged. Understanding the causes of the increases in mental health problems is a prerequisite to determining what new public policy initiatives, if any, might improve the situation.

## HIGH USE OF SCREENS BY YOUNG PEOPLE IS CORRELATED WITH DECREASES IN SELF-ESTEEM AND HAPPINESS

The explanation which has been given most prominence in recent times is that the decline in teenage mental health has been due to the impact of smartphones and, related to this, the role that social media now has in being a conduit for relationships between adolescents. This is a view that has gained support from Vikek Murthy, the US Surgeon-General,<sup>20</sup> and from a 2023 report of the National Academies of Sciences, Engineering, and Medicine.<sup>21</sup>

Leading American scholars, Jonathan Haidt and Jean Twenge have been particularly influential in raising awareness of this issue. They call for legislative changes in response, one of which is that the minimum age to sign up for social media should be 16 and that the age of new applicants should be verified.<sup>22</sup> The US Surgeon-General has also drawn attention to the issue in a 2023 advisory entitled *Social Media and Youth Mental Health*.<sup>23</sup> He calls for policy-makers, as well as technology companies, to take numerous actions to address the issue.

The case that smartphones and social media have had a substantial negative

impact on adolescents' mental health is overall, a convincing one, notwithstanding that causation is difficult to establish and the evidence is primarily correlational. High use of digital communication and screens by young people is correlated with decreases in self-esteem, life satisfaction and happiness.<sup>24</sup> American research with university students has demonstrated that limiting social media use to about 30 minutes per day decreases depression and loneliness.<sup>25</sup>

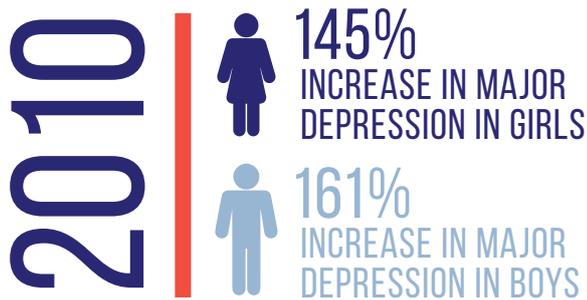
The 2018 Headspace survey of over 4,000 young people aged 12-25 in Australia found that 37% of respondents blamed social media as the main reason why young people's mental health is getting worse. A further 6% nominated information technology such as the internet.<sup>26</sup>

Haidt and Twenge identify 2012 as the year when teenage mental health began to nosedive, and this is around the time when smartphones began to be ubiquitous in the United States and other countries with similar levels of wealth.



<sup>20</sup> *Social Media and Youth Mental Health: The U.S. Surgeon General's Advisory* (2023). <sup>21</sup> National Academies of Sciences, Engineering, and Medicine, *Social Media and Adolescent Health* (2023). <sup>22</sup> For a range of reform options, see Jonathan Haidt & Zach Rausch, 'Solving the Social Dilemma: Many Paths to Social Media Reform' *After Babel* (<https://jonathanhaidt.substack.com>), November 28th 2023. See also National Academies, *ibid.* <sup>23</sup> <https://www.hhs.gov/sites/default/files/sg-youth-mental-health-social-media-advisory.pdf> (May 2023). <sup>24</sup> J Twenge et al, 'Decreases in Psychological Well-being among American Adolescents after 2012 and Links to Screen Time during the Rise of Smartphone Technology' (2018) 18 *Emotion*, 765. <sup>25</sup> M Hunt & J Young, 'No More FOMO: Limiting Social Media Decreases Loneliness and Depression' (2018) 37 *Journal of Social & Clinical Psychology* 751. <sup>26</sup> Above, n.2, p.52.

Haidt has set out the evidence for this being a turning point year in his After Babel Substack channel.<sup>27</sup> In a February 2023 post entitled *The Teen Mental Illness Epidemic Began Around 2012*, he argues that a major factor, but not by any means the only factor, in the deterioration of adolescent mental health has been the increasing prominence of social media in the lives of teenagers. Haidt, Twenge and Zach Rausch have been building a comprehensive database, drawing upon data from many parts of the world.<sup>28</sup> They cite one large US study which indicates a 145% increase in major depression in girls since 2010, and an even greater increase amongst boys (161%) – but at much lower levels of prevalence.<sup>29</sup> From 2004–2011, prevalence rates were fairly stable. For girls in particular they jumped around a bit. However, from 2012, rates of major depression increased sharply.



Data that Haidt cited from US universities and colleges shows a similar pattern. Between 2010 and 2019, there was a 134% increase in students with an anxiety disorder and a 106% increase in students suffering from depression. In 2019, one in four American college students suffered from an anxiety disorder, compared to just one in ten back in 2010. At much lower levels of prevalence, other mental disorders had also increased substantially, including ADHD, bipolar mood disorder, anorexia, substance addiction and schizophrenia.

The upward trends began in 2010 but accelerated quickly from 2012 onwards.<sup>30</sup>

**IN 2019, ONE IN FOUR COLLEGE STUDENTS SUFFERED FROM AN ANXIETY DISORDER, COMPARED TO JUST ONE IN TEN IN 2010.**

Why would the ubiquitous use of smartphones have such a harmful effect on adolescent mental health, and particularly for teenage girls? One reason is the way in which programs such as Instagram, Snapchat and Tumblr present teenage girls in particular with countless images of other girls of their age who may seem prettier, more popular, or having more fun than them. This can lead to negative ruminations on their own body image and their degree of popularity with their peers.<sup>31</sup>

There may also be other contributing factors in this period that cannot so readily be explained by social media and smartphones. In the United States at least, substantial differences have been observed in the mental health of teenagers between those who are liberal, that is, progressive, in their politics and those who are conservative. This is a political polarisation which is arguably much greater in the USA than in Australia. A 2022 study, for example,<sup>32</sup> analysed data from over 86,000 12th graders between 2005–2018. While depressive symptoms increased across the board, the largest increases were seen among the 22% of females who defined themselves as 'liberal' in their politics, followed by the 17.5% of males who identified as liberal. Conversely, both males and females

<sup>27</sup> <https://jonathanhaidt.substack.com>. <sup>28</sup> Jonathan Haidt, Jean Twenge & Zach Rausch, 'Adolescent Mood Disorders since 2010: A Collaborative Review', at [https://docs.google.com/document/d/1diMvsMeRphUH7E6D1d\\_J7R6WbDdgnzFHDHPx9HXzR5o/edit?pli=1](https://docs.google.com/document/d/1diMvsMeRphUH7E6D1d_J7R6WbDdgnzFHDHPx9HXzR5o/edit?pli=1). <sup>29</sup> Jean Twenge et al, 'Age, Period, and Cohort Trends in Mood Disorder Indicators and Suicide-related Outcomes in a Nationally Representative Dataset, 2005–2017' (2019) 128 *Journal of Abnormal Psychology* 185–199. <sup>30</sup> Data from American College Health Association (2019), National College Health Assessment, analysed by Rausch in *Collaborative Review*, above n.28, at 1.1.17. <sup>31</sup> Jonathan Haidt, 'The Dangerous Experiment on Teen Girls' *The Atlantic*, November 21, 2021. <sup>32</sup> Catherine Gimbrone et al, 'The Politics of Depression: Diverging Trends in Internalizing Symptoms Among US Adolescents by Political Beliefs' (2022) 2 *SSM – Mental Health* 100043.

who identified as conservative had much lower levels of depressive symptoms.<sup>33</sup>

Analysing the same database, Jonathan Haidt found that young people identifying as progressive had much higher scores on a scale of self-derogation than conservative young people.<sup>34</sup> This scale measured responses to four statements:

- I feel I do not have much to be proud of.
- Sometimes I think I am no good at all.
- I feel that I can't do anything right.
- I feel that my life is not very useful.

Progressive (liberal) girls had the highest scores on this self-derogation scale. There had been a substantial rise in these scores between about 2008 and 2021. Progressive boys also had greatly elevated scores compared with conservative girls and boys.

This raises significant questions, unrelated specifically to smartphones or social media, about why there may be a much greater tendency amongst adolescents of a certain political worldview to think rather less of themselves than those with more conservative political views. There are also questions about the direction of causation. Are those with higher rates of self-derogation or depressive symptoms more likely to identify as progressive, or are there elements of an adolescent progressive worldview such as a tendency to see the world through the lens of a struggle between oppressors or oppressed, that lead young people to be more depressed or to have lower self-esteem than those who have a conservative worldview?

The findings illustrate that we should not look for one cause in terms of the decline of adolescent mental health. There are likely to be multiple factors at work.

## CHALLENGING THE HAIDT-TWENGE THESIS – DATA ON HOSPITALISATION FOR SELF-HARM

We don't wish to discount the significance of social media and smartphones in their negative impact on adolescent and young adult mental health; there is no doubt that around the Western world, there was a sharp deterioration in mental well-being for this generation of young people from about 2012 onwards. No other explanation fits the evidence nearly as well,<sup>35</sup> particularly in social media's adverse effects on teenage girls for whom body image and peer-acceptance can be important influences on well-being. The relatively consistent international patterns suggest that factors specific to one country, such as domestic political issues, have limited explanatory power.<sup>36</sup>

However, it is important also to look at what other influences may be at work beyond those traceable to smartphones and social media. The Haidt and



<sup>33</sup> 21% of males and 15% females identified as conservative. <sup>34</sup> Jonathan Haidt, 'Why the Mental Health of Liberal Girls Sank First and Fastest', *After Babel*, March 9th 2023. <sup>35</sup> Jean Twenge, 'Here are 13 Other Explanations for the Adolescent Mental Health Crisis. None of Them Work', *After Babel*, October 24, 2023. See also Jean Twenge, 'Academic Pressure Cannot Explain the Mental Illness Epidemic' *After Babel*, March 15, 2023. <sup>36</sup> Gimbrone et al, above n.32 offered explanations based upon American domestic issues when Barack Obama was President.

Twenge thesis is heavily reliant on data which shows a relatively stable pattern in terms of adolescent mental health before about 2012, and a sharp increase from 2012 onwards. They have been able to demonstrate this across a number of countries; but some of the Australian data at least, challenges their thesis, and there is evidence of similar patterns in other countries also. That data suggests that while technological changes may have greatly increased the speed at which adolescent mental health has deteriorated, it is not the primary cause of that deterioration.

The data which tends most to contradict the Haidt-Twenge thesis is evidence concerning increases at the more serious end of adolescent mental health problems, in particular the data on hospitalisation for self-harm. This shows a continuing and worrying pattern of increasing self-harm by adolescents, and especially teenage girls, that long pre-

dates the emergence of smartphones and widespread access to social media. In Australia at least, the pattern of ever-increasing rates of hospitalisation for self-harm date from the mid-1990s.

## TEENAGE RATES OF HOSPITALISATION FOR SELF-HARM IN AUSTRALIA BEFORE 2012

Self-harm sufficient to warrant admission to hospital is a canary in the coalmine of adolescent mental health. It is a subset of a broader problem of self-harming behaviour. When studied on a community level, rates of deliberate self-harm are much higher than the rates picked up in hospital databases.<sup>37</sup>

Self-harming behaviour usually functions to reduce and remove feelings of negative emotion that are overwhelming or persistent.<sup>38</sup> Self-harming alleviates these negative emotions temporarily.<sup>39</sup> Self-harming behaviour relates to self-criticism, self-directed anger and/or punishment.<sup>40</sup> It is also a predictor for future suicide ideation and attempts.<sup>41</sup>

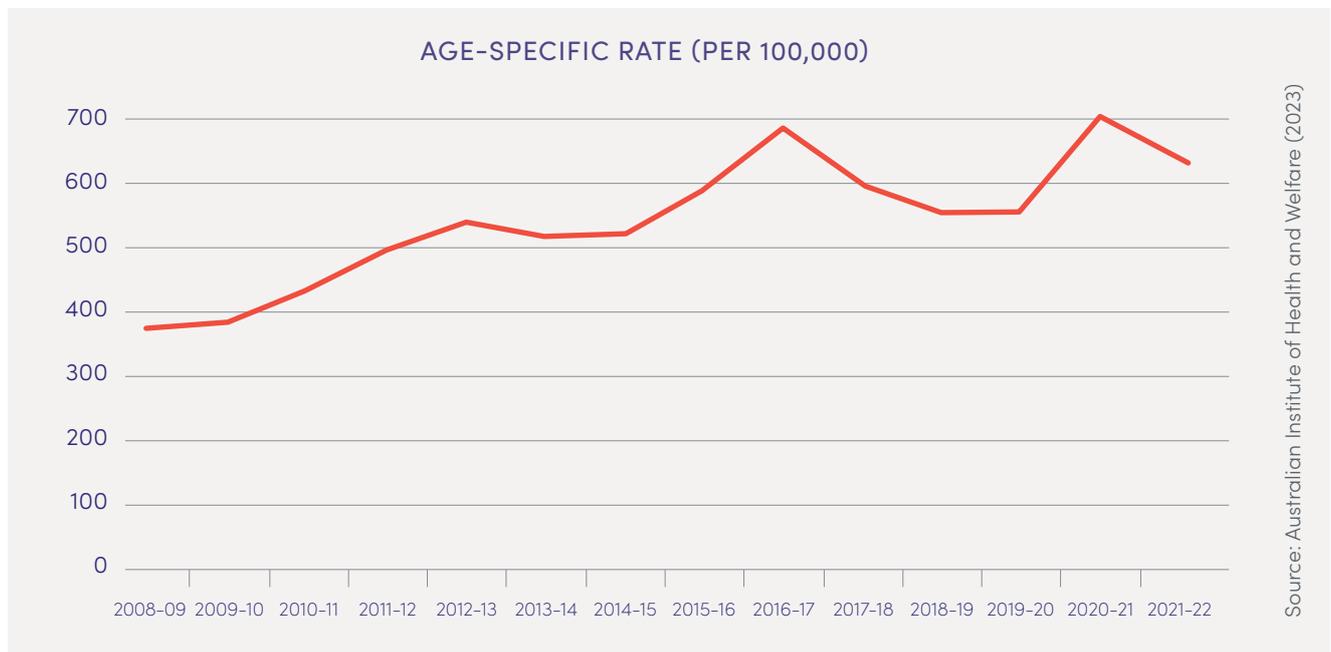


<sup>37</sup> Keith Hawton, Karen Rodham & Emma Evans, *By Their Own Young Hand: Deliberate Self-Harm and Suicidal Ideas in Adolescents* (Jessica Kingsley, 2006). <sup>38</sup> David Klonsky, Sarah Victor & Boaz Saffer, 'Nonsuicidal Self-injury: What we Know, and What we Need to Know' (2014) 59(11) *Canadian Journal of Psychiatry*, 565-568. <sup>39</sup> Mary Nixon, Paula Cloutier, & Sanjay Aggarwal, 'Affect Regulation and Addictive Aspects of Repetitive Self-Injury in Hospitalized Adolescents' (2002) 41(11) *Journal of the American Academy of Child & Adolescent Psychiatry* 1333-134. <sup>40</sup> Jill Hooley & Sarah St. Germain, 'Nonsuicidal Self-Injury, Pain, and Self-Criticism: Does Changing Self-Worth Change Pain Endurance in People who Engage in Self-Injury?' (2014) 2(3) *Clinical Psychological Science*, 297-305. <sup>41</sup> Becky Mars et al, 'Predictors of Future Suicide Attempt Among Adolescents with Suicidal Thoughts or Non-Suicidal Self-Harm: A Population-Based Birth Cohort Study' (2019) 6(4) *The Lancet Psychiatry*, 327-337; Tiago Duarte et al, 'Self-harm as a Predisposition for Suicide Attempts: A Study of Adolescents' Deliberate Self-Harm, Suicidal Ideation, and Suicide Attempts', (2020) 287 *Psychiatry Research*, 112553.

There has been a significant increase in the number of adolescents in the 15-19 age group, per 100,000 population, who have been hospitalised for self-harm in Australia. The data in Figure 4 below comes from the Australian Institute of Health and Welfare. It indicates that rates of self-harm per 100,000 population of females rose from 373.6 in 2008-09 to 697.7 in 2020-21. While the last data coincides

with the Covid lockdown period, and may be atypical for that reason, it is clear that the upward trend is consistent from 2009 onwards, with a particularly sharp increase in 2016-17 before rates fell again. It may be observed that the pattern of increase pre-dates 2012. There was a continuous rise from 2008 onwards. The rate of self-harming in 2019-20 (552.2) is not materially different from that in 2012-13 (536.6).

**FIGURE 4: AUSTRALIA: HOSPITALISATION FOR SELF-HARM: FEMALES AGED 15-19 (2008-2021)**



**RATES OF SELF-HARM  
IN FEMALES HAS RISEN  
CONTINUOUSLY  
SINCE 2008**



For males, there was also an increase from 124 per 100,000 in 2008/2009 to 165 in 2020/2021.<sup>42</sup>

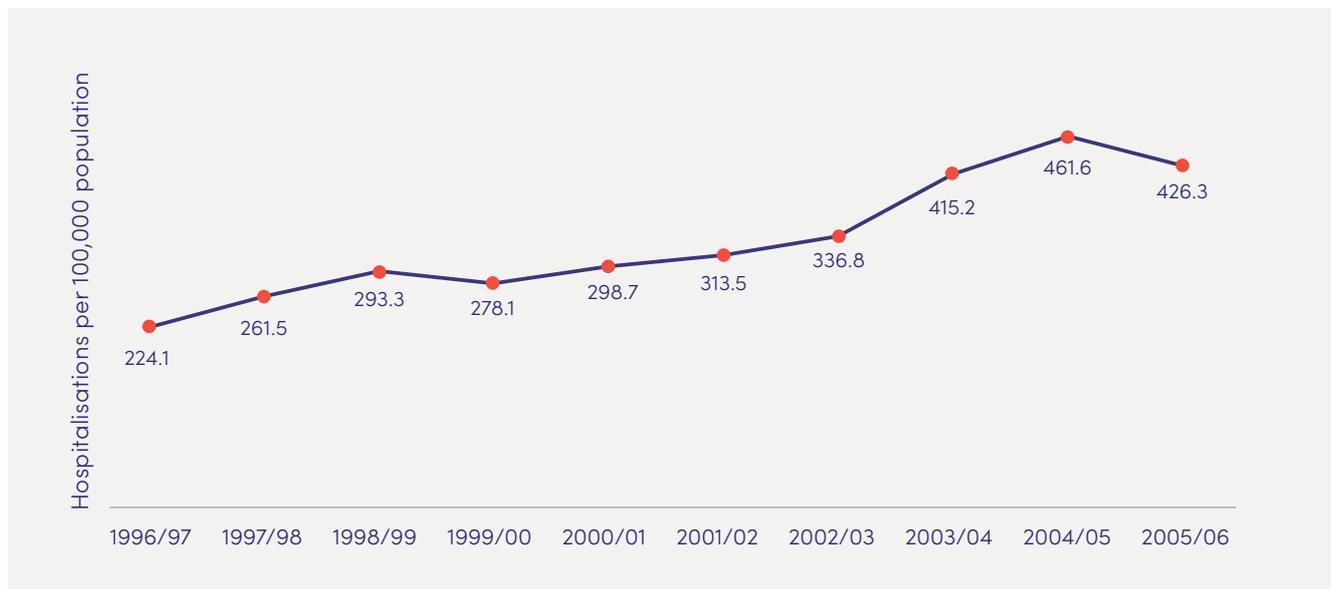
The Australian Institute of Health and Welfare published data on the 15-19 age group only goes back to 2008-09, however, in 2008, it did publish data on the 1996-2006 period for the age group from 12-24.<sup>43</sup> This showed a steady increase in rates of self-harm for both males and females across the decade. It provided more age-specific data, for 12-14 year olds and 15-17 year olds, to the first author, who published them in a report, *For Kids' Sake* in 2011.<sup>44</sup> Below is the data for 15-17 year old girls.

**THERE HAS BEEN A SERIOUS DETERIORATION IN THE MENTAL HEALTH AND WELL-BEING OF YOUNG PEOPLE IN WESTERN COUNTRIES OVER GENERATIONS.**

This represents a 90% increase over that period. The *For Kids' Sake* data also demonstrated a substantial increase in hospitalisation of males, but not as great an increase as for females. There was also a substantial increase in hospitalisation of 12-14 year olds, both male and female.

Comparing the 15-17 year old data from 1996-2006 with the data from 2008-09 onwards for 15-19 year olds, it seems evident that the rate of increase in self-harming by adolescent girls 15 years and older has shown a steady increase since the mid-1990s, even if it is not possible to present this as a continuous and consistent dataset from the mid-1990s to the present day.<sup>45</sup>

**FIGURE 5: AUSTRALIA: HOSPITALISATION FOR SELF-HARM: FEMALES AGED 15-17 (1996-2006)**



Source: Australian Institute of Health and Welfare: ICD-9-CM principal diagnosis code 800-999 and external cause code E950-E959 (1996-97 to 1997-98) and ICD-10-AM principal diagnosis code S00-T98 and external cause code X60-X84 (1998-99 to 2005-06).

<sup>42</sup> Australian Institute of Health & Welfare, *Intentional Self-Harm Hospitalisations Among Young People* (2023) at <https://www.aihw.gov.au/suicide-self-harm-monitoring/data/populations-age-groups/intentional-self-harm-hospitalisations-among-young>. <sup>43</sup> Australian Institute of Health and Welfare, *Injury Among Young Australians*, Bulletin 60 (May 2008), pp. 28-29. <sup>44</sup> Patrick Parkinson, *For Kid's Sake: Repairing the Social Environment for Australian Children and Young People*. Sydney Law School Research Paper (2011), available at [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1967243](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1967243). <sup>45</sup> There may be some difficulty in comparability of the data with changes in ICD (International Classification of Diseases) Codes and differences in methodology over time.

## TEENAGE RATES OF HOSPITALISATION FOR SELF-HARM IN ENGLAND BEFORE 2012

There is data from other countries also which contradicts the thesis that substantial increases in self-harm by adolescents only occurred after about 2012. A study of young people under 20 in Oxford found an increase in attempted suicides between 1985 and 1995 of 27.7% in males and 28.3% in females.<sup>46</sup> Another study of 12–18 year olds who presented to hospital after deliberately self-harming in the decade from 1990–2000 also saw an increase. The number of presentations by teenage girls rose from 122 to 151 in that decade.<sup>47</sup>

Another English study analysed data from the 2000, 2007 and 2014 Adult Psychiatric Morbidity Surveys. This a series of surveys of the mental health of the general population. Participants, who were interviewed in their homes, were asked whether they had ever deliberately harmed themselves in any way but not with the intention of killing themselves. In 2000, 6.5% of 16 – 24 year old females reported ever having engaged in such non-suicidal self-harm. By 2007 this had risen to 11.7% and by 2014 to 19.7%. As in Australia, this demonstrates a very substantial increase in self-harming behaviour by adolescent or young adult females which can be seen well before the emergence of smartphones and the ubiquitous engagement by adolescents with social media.<sup>48</sup>



## THE IMPORTANCE OF A LONG-TERM PERSPECTIVE

What the selected Australian and English statistics demonstrate is that if one takes a short time period, say 2008 to the present, and examines population-wide prevalence of mental health problems among adolescents, the increase, particularly for adolescent girls, is dramatic; but if a longer time frame is utilised, and a measure of more intense distress is adopted, such as hospitalisation for self-harm, then at least in some countries, the upward trend can be seen very much earlier than 2012.

The available evidence indicates that there has been a serious deterioration in the mental health and well-being of young people in Western countries over generations. The international trends have been recognised by UNICEF, which in a 2011 report, concluded that internationally, the prevalence of mental disorders among adolescents has increased in the past 20–30 years.<sup>49</sup>

Twenge et al's study of results from the widely used Minnesota Multiphasic Personality Inventory (MMPI) test between 1938 and 2007 illustrates the long-term picture.<sup>50</sup> They found that each generation of college students had experienced poorer mental health than the previous one. At least five times as many college students in 2007 as in 1938 had measures indicating psychopathology on the various elements included in that test. These included measures of hypomania, schizophrenia, psychopathic deviation, paranoia and

<sup>46</sup> Keith Hawton et al, 'Deliberate Self-harm in Adolescents in Oxford, 1985–1995' (2000) 23(1) *Journal of Adolescence*, 47–55. <sup>47</sup> Keith Hawton et al, 'Deliberate Self-harm in Adolescents: A Study of Characteristics and Trends in Oxford, 1990–2000' (2003) 44(8) *Journal of Child Psychology and Psychiatry* 1191–1198. <sup>48</sup> Sally McManus et al, 'Prevalence of Non-suicidal Self-harm and Service Contact in England, 2000–14: Repeated Cross-sectional Surveys of the General Population', (2019) 6(7) *The Lancet Psychiatry*, 573–581. <sup>49</sup> United Nations Children's Fund (UNICEF), *The State of the World's Children 2011: Adolescence: An Age of Opportunity*, (February 2011) 27. <sup>50</sup> Jean Twenge et al, 'Birth Cohort Increases in Psychopathology among Young Americans, 1938–2007: A cross-temporal meta-analysis of the MMPI' (2010) 30 *Clinical Psychology Review* 145–154.

depression. This substantial increase in mental disorders was clear even after controlling for a greater willingness over time to acknowledge the presence of mental health issues. The researchers found that the increase occurred steadily and was most strongly correlated with an increase in extrinsic values and a decline in intrinsic values. Extrinsic values are material and individualistic values such as being well-off financially and attaining career success. Intrinsic values include placing importance on close relationships and having a meaningful philosophy of life. The researchers also found that the divorce rate was positively and significantly correlated with scores on all of the clinical scales.

The increase in mental health problems has also been noted in many other studies of US trend data.<sup>51</sup> Evidence of a significant decline in the mental health and well-being of young people also comes from numerous other studies in European countries.<sup>52</sup> For example, an English study found a substantial increase in adolescent emotional

problems between 1986 and 2006.<sup>53</sup>

A Scottish study found similar evidence in responses from 15 year olds in 1987, 1999 and 2006 respectively on scores of self-reported psychological distress.<sup>54</sup> Even using the most stringent cut-off for diagnosis, the rate for males in 2006 was three times higher than that in 1987 and for females, four times higher. Adverse scores on some individual items increased much more markedly over time than others. For example, endorsement of 'thinking of yourself as a worthless person' was around four times more likely in 2006 than in 1987.

## OTHER EXPLANATIONS FOR YOUNG PEOPLE'S WORSENING MENTAL HEALTH

There are various population-wide explanations for the deterioration in adolescent mental health. The US Surgeon-General, in an Advisory on youth mental health in 2021, summarised the major explanations being offered:<sup>55</sup>



<sup>51</sup> Cassandra Newsom et al, 'Changes in Adolescent Response Patterns on the MMPI/MMPI-A Across Four Decades' (2003) 81 *Journal of Personality Assessment* 74-84; Ralph Swindle et al, 'Responses to Nervous Breakdowns in America over a 40-year Period' (2000) 55 *American Psychologist* 740-749; Jean Twenge, 'The Age of Anxiety? Birth Cohort Change in Anxiety And Neuroticism, 1952-1993' (2000) 79 *Journal of Personality and Social Psychology* 1007-1021; Gerald Klerman and Myrna Weissman, 'Increasing Rates of Depression' (1989) 261 *Journal of the American Medical Association* 2229-2235. <sup>52</sup> Sylvia Eimecke, et al, 'Time Trends in Psychopathology: A 21-year comparison from Germany' (2011) 39 *Zeitschrift für Kinder- und Jugendpsychiatrie und Psychotherapie* 187-195; Kyriaki Kosidou et al, 'Recent Time Trends in Levels of Self-reported Anxiety, Mental Health Service Use and Suicidal Behaviour in Stockholm' (2009) 122 *Acta Psychiatrica Scandinavica* 47-55; Nouchka Tick, Jan van der Ende & Frank Verhulst, 'Ten-year Trends in Self-reported Emotional and Behavioral Problems of Dutch Children' (2008) 43 *Social Psychiatry and Psychiatric Epidemiology* 349-355; Nouchka Tick, Jan van der Ende & Frank Verhulst, 'Twenty-year Trends in Emotional and Behavioural Problems in Dutch Children in a Changing Society' (2007) 116 *Acta Psychiatrica Scandinavica* 473-482; Manfred Fichter et al, 'A Comparative Study of Psychopathology in Greek Adolescents in Germany and in Greece in 1980 and 1998 - 18 years apart' (2004) 254 *European Archives of Psychiatry and Clinical Neuroscience* 27-35; Eric Fombonne, 'Increased Rates of Psychosocial Disorders in Youth' (1998) 248 *European Archives of Psychiatry and Clinical Neuroscience* 14-21. See also Richard Eckersley, 'Troubled Youth: An Island of Misery in an Ocean of Happiness, or the Tip of an Iceberg of Suffering?' (2011) 5 *Early Intervention in Psychiatry* 6-11. <sup>53</sup> Stephan Collishaw et al, 'Trends in Adolescent Emotional Problems in England: A Comparison of Two National Cohorts Twenty Years Apart' (2010) 51 *Journal of Child Psychology and Psychiatry* 885-894. <sup>54</sup> Helen Sweeting, Robert Young, & Patrick West, 'GHQ Increases Among Scottish 15 year olds 1987-2006' (2009) 44(7) *Social Psychiatry and Psychiatric Epidemiology* 579-586. <sup>55</sup> *Protecting Youth Mental Health: The U.S. Surgeon General's Advisory* (2021) p.8.

Scientists have proposed various hypotheses to explain these trends. While some believe that the trends in reporting of mental health challenges are partly due to young people becoming more willing to openly discuss mental health concerns, other researchers point to the growing use of digital media, increasing academic pressure, limited access to mental health care, health risk behaviors such as alcohol and drug use, and broader stressors such as the 2008 financial crisis, rising income inequality, racism, gun violence, and climate change.

In addition, the Advisory says, race and growing up in poverty are factors that exacerbate the risk of poor mental health in sub-populations in the United States.

Richard Eckersley, an Australian expert, relates the decline in children's well-being to wider cultural changes in Western nations:<sup>56</sup>

Rising materialism and individualism are defining characteristics of modern Western culture. Both have conferred benefits to people, including to their health and well-being. However, there is growing evidence of diminishing benefits and rising costs. The costs include a heightened sense of risk, uncertainty and insecurity; a lack of clear frames of reference; a rise in personal expectations, coupled with a perception that the onus of success lies with the individual, despite the continuing importance of social disadvantage and privilege; a surfeit or excess of freedom and choice, which is experienced as a threat or tyranny; the confusion of autonomy with independence; and a shift from intrinsic to extrinsic values and goals.

These quotations illustrate the myriad of explanations being offered. What is surprisingly missing from them is any focus on relationships – within the family, amongst peers and in the wider community. Yet if a long-term view is taken of the decline in teenage mental health, changes in family structure, and in particular, a decline in the number of children growing up into adulthood living together with two biological parents, is one of the most marked changes with a known impact on child and adolescent well-being.

## FAMILY INSTABILITY

The significance of family disruption as a factor in deteriorating adolescent mental health was recognised by UNICEF, in its 2011 report on adolescent well-being.<sup>57</sup> The overwhelming evidence from research is that children do best in two-parent married families.<sup>58</sup> Most children and young people will also bounce back from a parental divorce, despite short-term negative impacts upon their well-being,<sup>59</sup>



<sup>56</sup> Richard Eckersley, 'More Young People are Struggling and There is no Quick Fix. Why Being Young is Getting Worse' *Salon*, September 16th 2023 at <https://www.salon.com/2023/09/16/more-young-people-are-struggling-and-there-is-no-quick-fix-why-being-young-is-getting-worse/>. <sup>57</sup> United Nations Children's Fund (UNICEF), *The State of the World's Children 2011: Adolescence: An Age of Opportunity*, (February 2011) 27. <sup>58</sup> Susan Brown, 'Marriage and Child Well-Being: Research and Policy Perspectives' (2010) 72 *Journal of Marriage and Family* 1059-1077; Paul Amato, 'Research on Divorce: Continuing Trends And New Developments' (2010) 72 *Journal of Marriage and Family* 650-666, Sara McLanahan and Christine Percheski, 'Family Structure and the Reproduction of Inequalities' (2008) 34 *Annual Review of Sociology* 257-276; Deidre Bloom, 'Childhood Family Structure and Intergenerational Income Mobility in the United States' (2017) 54 *Demography* 541-69. <sup>59</sup> Joan Kelly and Robert Emery, 'Children's Adjustment Following Divorce: Risk and Resilience Perspectives' (2003) 52 *Family Relations* 352-362; Paul Amato, 'The Consequences of Divorce for Adults and Children' (2000) 62 *Journal of Marriage and Family* 1269-1287.

however for some, there will be more long-lasting impacts upon mental health.<sup>60</sup>

A substantial minority of children experience not just a single change in their family structure, such as a parental separation or divorce, but multiple changes in their parents' marital or romantic relationship status over time.<sup>61</sup> Changes to family structure can also lead to consequential changes in children's lives, particularly moving home, which often brings changes to school and neighbourhood and a loss of children's friendships.<sup>62</sup>

The adverse impact of family instability on children and young people's mental health is very well-documented. There are known effects upon internalising and externalising behaviours, in particular depression and delinquency in adolescence. There are also negative impacts upon academic performance associated with parental separation.<sup>63</sup>

This makes it the more surprising that family instability does not feature prominently

in explanations of the deterioration in child and adolescent mental health. The correlation between family structure and adolescent mental health difficulties is illustrated by data from the Second Australian Child and Adolescent Survey of Mental Health and Well-being, published in 2015.<sup>64</sup> The researchers conducted surveys with parents in 6,310 households. They also obtained data from 2,967 young people aged 11-17. The researchers estimate that 14% of children and young people aged 4-17 had had a mental disorder in the previous twelve months, with rates especially high among male children. 2.1% of children and young people were assessed as having a severe disorder, but that varied with age. Among 12-17 year-olds, the figure was 3.3%. The researchers identified an association with family structure.

Correlation is not causation, but the data is consistent with a vast amount of other evidence concerning the relationship between family stability and children's well-being, with high levels of conflict between

**FIGURE 6:** 12-MONTH PREVALENCE OF MENTAL DISORDERS IN 4 TO 17 YEAR OLDS BY SOCIODEMOGRAPHIC CHARACTERISTICS

FAMILY TYPE	%
Original family	10.4
Step-family	18.3
Blended family	20.2
Sole parent or carer family	22.4
Other family	23.7



<sup>60</sup> Paul Amato & Juliana Sobolewski, 'The Effects of Divorce and Marital Discord on Adult Children's Psychological Well-being' (2001) 66 *American Sociological Review* 900-21. <sup>61</sup> LL Wu & BC Martinson, 'Family Structure and the Risk of a Premarital Birth' (1993) 58 *American Sociological Review*, 210-232. <sup>62</sup> Sara McLanahan and Gary Sandefur, *Growing Up with a Single Parent: What Hurts, What Helps* (Harvard University Press, 1994); Irvin Sandler et al, 'Stability and Quality of Life Events and Psychological Symptomatology in Children of Divorce' (1991) 19 *American Journal of Community Psychology* 501-520; Jay Teachman, Kathleen Paasch & Karen Carver, 'Social Capital and Dropping Out of School Early' (1996) 58 *Journal of Marriage and the Family* 773-783; Robert Emery, 'Post-divorce Family Life for Children: An Overview of Research and Some Implications for Policy' in Ross Thompson and Paul Amato (eds), *The Post-divorce Family: Children, Parenting and Society* (Sage Publications, 1999). <sup>63</sup> For a recent review, see Shannon Cavanagh and Paula Fomby, 'Family Instability in the Lives of American Children' (2019) 45 *Annual Review of Sociology* 493-513. <sup>64</sup> David Lawrence et al, *The Mental Health of Children and Adolescents. Report on the second Australian Child and Adolescent Survey of Mental Health and Well-being* (Department of Health, Canberra, 2015).

parents, and a diminution in the involvement of fathers being significant causative factors in terms of outcomes for children.<sup>65</sup>

Taking the long-term view that adolescent mental health problems have been increasing for decades, the correlation with increases in family instability over the same period is evident. Brown, Stykes and Manning summarise the changes that have occurred over recent decades in terms of family structure in the United States:<sup>66</sup>

Recent family trends portend growth in family instability during childhood. In addition to the rise in unmarried births, the continued growth in cohabitation and serial cohabitation, as well as the decreasing tendency for cohabitation to culminate in marriage, point to more family transitions for children. Even children in married families may experience less stability today than in the past given new evidence that divorce has been climbing during the past few decades. Also, the growth in multiple-partner fertility coincides with the “marriage-go-round” of partnerships identified by Cherlin that translate into high levels of partnership formation and dissolution by parents. All of these changes in family behaviors suggest that children experience more family instability than they did a generation ago.

Quite simply, fewer children are living with both biological parents by the time they reach late adolescence than was the case a few decades ago.<sup>67</sup> The key drivers of this are the growth in the number of children born to single mothers and the rise in

**ABOUT 40% OF ALL CHILDREN IN AUSTRALIA WILL EXPERIENCE ONE OF THEIR BIOLOGICAL PARENTS LIVING ELSEWHERE BY THE TIME THEY ARE 15-17 YEARS OLD**

cohabitation as a family form for bearing and raising children.

Children born into cohabiting unions are much more likely than those born into marital unions to experience parental separation.<sup>68</sup>

There are significant variations between countries in patterns of family formation, dissolution and repartnering,<sup>69</sup> and so it might be expected that there would be variations in the prevalence of anxiety, depression and other mental health issues across the child and adolescent population in each country.

An indication of the extent of change in family instability over the 20 year period that coincides with the rise in adolescent self-harming behaviours comes from Australian research. About 40 per cent of all children will experience one of their biological parents living elsewhere by the time they are 15–17 years old, according to data gathered in 2012–13.<sup>70</sup> This represents an increase from around 25 per cent some 20 years ago.<sup>71</sup>



## SOCIAL ISOLATION AND MENTAL HEALTH

Another relational dimension to the increase in teenage mental health issues is social isolation. Students who are not well-integrated into social networks

<sup>65</sup> See notes 60–65 above. <sup>66</sup> Susan Brown, Bart Stykes and Wendy Manning, ‘Trends in Children’s Family Instability, 1995–2010’ (2016) 78(5) *Journal of Marriage & the Family*, 1173–1183, at 1174 (references omitted). <sup>67</sup> Frank Furstenberg ‘Fifty Years of Family Change: From Consensus to Complexity’ (2014) 654 *Annals of the American Academy of Political Science* 12–54. <sup>68</sup> C Osborne, W Manning, & P Smock, ‘Married and Cohabiting Parents’ Relationship Stability: a Focus on Race and Ethnicity’. (2007) 69 *Journal of Marriage & Family*, 1345–1366; K Kiernan & F Mensah, ‘Unmarried Parenthood, Family Trajectories, Parent and Child Well-being’. In K. Hansen, H. Joshi, & S. Dex, eds, *Children of the 21st Century: From Birth to Age 5* (2010). <sup>69</sup> Nina Stoddard-Bennett et al, ‘Family Structure and Child Behavior Problems in Australia, the United Kingdom, and the United States’ (2023) 20(3) *International Journal of Environmental Research & Public Health* 1780. <sup>70</sup> Australian Bureau of Statistics, *Family Characteristics and Transitions, Australia*, 2012–13. <sup>71</sup> D De Vaus, D & M Gray, ‘The Changing Living Arrangements of Children, 1946–2001’. (2004) 10 *Journal of Family Studies*, 9–19.

at school and beyond are much more likely to have poor mental health than students who have a lot of friends and can call upon support when needed.

Social or relational poverty is an issue when a person lacks an adequate number of high-quality, trustworthy relationships to meet his or her social and emotional needs.<sup>72</sup> It goes hand in hand with loneliness. Data from the US Youth Risk Behavior Survey in 2021 indicates that students who had high levels of social connectedness at school were nearly half as likely to report poor mental health in the last thirty days as those with low levels of connectedness. More than half the young women who reported low levels of social connectedness at school reported poor mental health, compared to 32% who had high levels of social connectedness.<sup>73</sup>

This ought to be unsurprising. Good relationships are fundamental to human flourishing. Loneliness at school, as reported by year 10 students, has been increasing in almost every country in the OECD in the last two decades.<sup>74</sup> Like family instability, it provides an explanation for the increase in mental health problems for adolescents.<sup>75</sup>

## CONCLUSION

There can be little doubt that smartphones and youth-focused social media are an important factor in explaining the rise in rates of mental health disorders and levels of distress amongst teenagers. However, it is better to see these factors as providing an accelerant to a fire that was already burning strongly and growing in its intensity in the years before smartphones became ubiquitous.

To address these very serious issues, it is vital to pay attention to the impact that relational poverty, in particular disrupted family relationships and lack of connectedness with a supportive friendship group, has on adolescent mental health. It is not all of the explanation, but neither can it be ignored.

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<sup>72</sup> Sarah Halpern-Meekin, 'Social Poverty & Relational Resources' (2020) 19(2) *Contexts*, pp. 40–45. <sup>73</sup> Natalie Wilkins et al, 'School Connectedness and Risk Behaviors and Experiences Among High School Students – Youth Risk Behavior Survey, United States, 2021' (2023) 72(1) *Morbidity and Mortality Weekly Report Supplements* 13–21. <sup>74</sup> Jean Twenge et al, 'Worldwide Increases in Adolescent Loneliness' (2021) 93 *Journal of Adolescence* 257–269. <sup>75</sup> Joseph Allen et al, 'The Relation of Attachment Security to Adolescents' Paternal and Peer Relationships, Depression, and Externalizing Behavior', (2007) 78(4) *Child Development*, 1222–1239.

