UCL

Mental ill-health at age 17 in the UK

Prevalence of and inequalities in psychological distress, self-harm and attempted suicide

The past decade or so has seen a growing policy focus on young people's mental health, with governments repeatedly stating their commitment to improving prevention and access to mental health services for young people. Three-quarters of lifetime mental illness are first experienced before age 20[1], highlighting that prevention efforts in the first two decades of life are vital. There are also stark differences in the experience of common mental health difficulties across young people, with important implications for inequalities in a host of social, economic and health outcomes later on.

This report focuses on mental ill-health at age 17, using data collected from participants in the Millennium Cohort Study (MCS) in 2018-19. It presents prevalence of psychological distress, self-harm and attempted suicide. It describes important mental health inequalities across the following key socio-demographic characteristics: sex, ethnicity, sexuality and socioeconomic position.

Combined with data collected from a subset of participants during the COVID-19 national lockdown in May 2020, when they were aged 19, the report also presents evidence on changes in psychological distress from ages 17 to 19.

Key findings

- **High levels of severe mental health difficulties:** The prevalence of high psychological distress is 16.1% (95% CI: 14.7, 17.7), 12-month prevalence of self-harm is 24.1% (95% CI: 22.6, 25.7) and lifetime attempted suicide is 7.4% (95% CI: 6.6, 8.3).
- **Stark sex differences:** Prevalences of mental health difficulties are consistently higher among females than males: 22.1% of females and 10.1% of males experienced high psychological distress, 28.2% of females and 20.1% of males self-harmed and 10.6% of females and 4.3% of males attempted suicide.
- **Large inequalities:** Females, White adolescents, sexual minorities and those from lower income households have poorer mental health across most outcomes. The exceptions are: no ethnic differences in attempted suicide and no socioeconomic differences in self-harm.
- **Increased risk among sexual minority adolescents:** There are stark inequalities by sexuality, with over half (55.8%) of LGB+ young people reporting self-harming in the last year and 21.7% of LGB+ young people having attempted suicide.

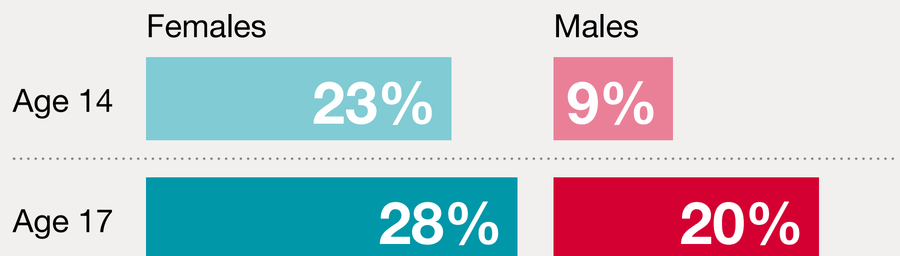
By Praveetha Patalay and Emla Fitzsimons

NOVEMBER 2020

Increase in prevalence of self-harming between ages 14 and 17

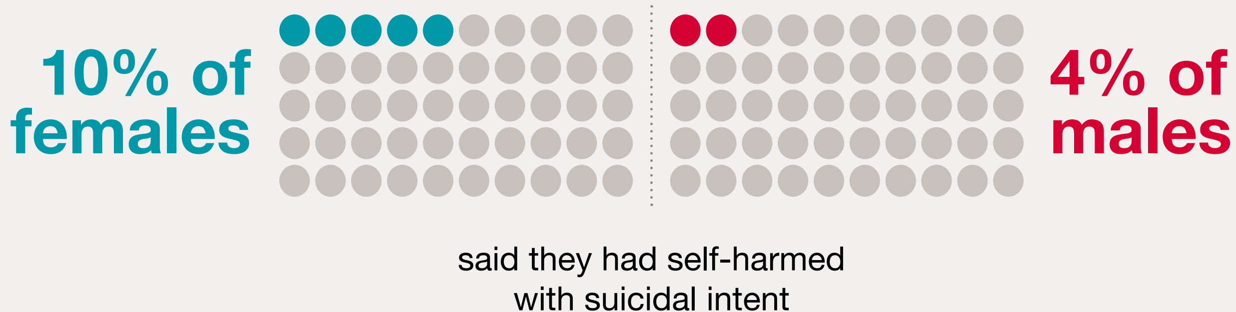
1 in 4

teenagers reported self-harming in past 12 months, with rates increasing since study members were last surveyed at age 14



Prevalence of attempted suicide

By age 17, approximately



What is known from the last time participants were surveyed at 14?

The focus of this report is informed by and extends previous findings from MCS relating to mental ill-health prevalences and inequalities therein, at age 14. Previous research findings include:

- 24.0% of females and 9.2% of males experienced high levels of depressive symptoms at age 14.[2] These prevalences are substantially higher than among previous generations.[3]
- At age 14, a substantial proportion – 15.4% (8.5% males, 22.8% females) – reported self-harming.[3]
- Examination of inequalities highlighted large differences by sex, with females more likely than males to suffer from depressive symptoms and to self-harm. We also reported differences by ethnicity and income: White and mixed ethnicity young people had worse mental health compared to Asian, Black and those of other ethnicities, and 14-year-olds with relatively higher household income had fewer mental health difficulties.[2]
- A wide-ranging examination of outcomes for sexual minority participants[4] revealed that they were more likely to suffer from depressive symptoms and to self-harm.[5]

Psychological distress distributions and prevalence of high psychological distress, self-harm and attempted suicide

Overall, the prevalence of serious psychological distress at age 17 is 16.1% (95% CI: 14.7, 17.7), 12-month prevalence of self-harm is 24.1% (95% CI: 22.6, 25.7) and lifetime prevalence of attempted suicide is 7.4% (95% CI: 6.6, 8.3).

In this report, focused on age 17, we present differences by sex, ethnicity and socioeconomic position for psychological distress, self-harm and attempted suicide, like at age 14 for depressive symptoms.[2]

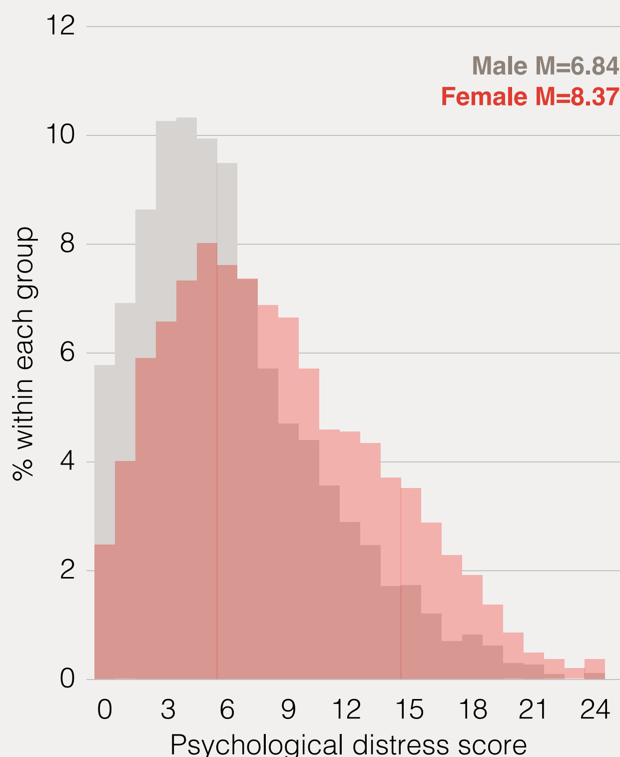
We also examine differences by sexual identity, given evidence of large disparities in adolescent mental health by sexuality.[5]

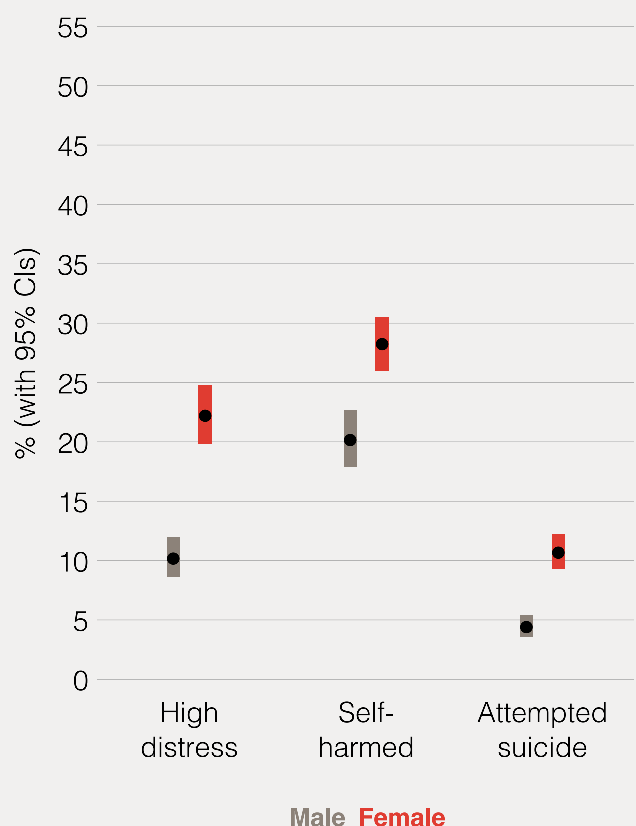
Differences by sex

Females have higher overall levels of psychological distress (left hand panel of Figure 1) and 22.1% experienced high levels of psychological distress in the last 30 days, compared to 10.1% of males (right hand panel of Figure 1).

Figure 1 shows that females also reported higher levels of self-harm in the last 12 months (28.2%) compared to males (20.1%), and higher rates of lifetime attempted suicide (10.6%) compared to males (4.3%).

FIGURE 1: DIFFERENCES BY SEX





Methods

Psychological distress

Participants responded to the Kessler-6 item measure of psychological distress.[6] The measure asks respondents how often in the last 30 days they felt: so depressed that nothing could cheer you up, hopeless, restless or fidgety, everything was an effort, worthless, and nervous, with response options ranging from “all of the time” to “none of the time”. Total scores can range from 0-24, with higher scores indicating greater distress. A score equal to or above 13 is indicative of serious levels of psychological distress or probable clinical diagnosis. We refer to scores above this cut-off as ‘high’ or ‘serious’ psychological distress in this report.

This measure was also repeated at age 19, where a sub-sample of participants responded to a short online survey in May 2020 to gather information about their experiences during the first COVID-19 UK national lockdown.

Self-harm

The survey also captured whether cohort members had self-harmed in the previous 12 months, with the question, “During the last year, have you hurt yourself on purpose in any of the following ways?”: cut or stabbed, burned, bruised or pinched, overdosed, pulled out hair, other. In this report we present 12-month prevalence of self-harming (yes or no).

Attempted suicide

Cohort members responded to the following question: “Have you ever hurt yourself on purpose in an attempt to end your life?” In this report we present lifetime prevalence of self-harm with suicidal intent (yes or no).

Inequality indicators

Sex at birth was used. Ethnicity was based on parent reports of cohort member’s ethnicity from previous surveys. Sexuality was based on cohort members reporting their sexual identity at age 17, and family income was based on household income at age 14 that has been OECD equivalised and divided into quintiles; poverty is below 60% of the median income.

Analytic sample

Data presented in this report are from all responses to these questions at age 17. At age 17, 10,625 families participated, of which 10,345 completed the self-report survey, with 10,103 completing a mental health measure and constituting our analysis sample (mean age: 17.18, sd=0.34; 51.3% female; 80.9% White, 3% mixed race, 10.9% Asian, 3.6% Black and 1.6% other ethnicities; 26.7% in poverty).

Prevalence estimates have been weighted to provide nationally representative estimates and are presented with 95% confidence intervals estimated using the Agresti-Couli method.

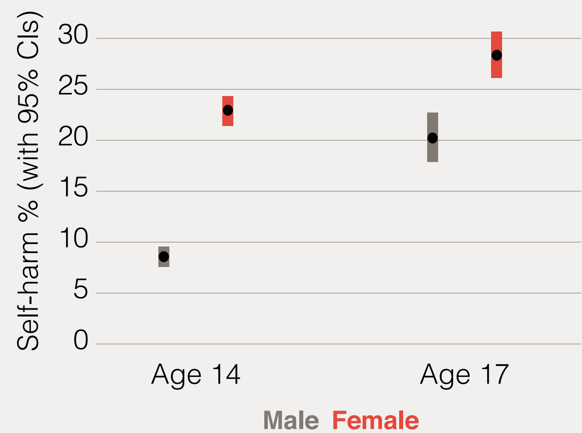
We present 12-month prevalence of self-harm at ages 14 and 17 in males and females, to illustrate changes between these ages.

Lastly, we investigate changes in mental health in a subset of 2,289 cohort members with data collected via an online survey in May 2020 (when aged 19), during the first UK COVID-19 lockdown.

Self-harm at ages 14 and 17

At ages 14 and 17, cohort members reported whether they had self-harmed in the previous 12 months. Figure 2 illustrates rates of self-harm separately for males and females at both ages. It shows that at age 14, 8.5% of males and 22.8% of females reported having self-harmed in the prior 12 months. At age 17, the proportions were 20.1% of males and 28.2% of females. Although at both ages more females than males reported self-harming, at age 17 the rates of self-harming between males and females were much more similar than they had been at 14, highlighting a much steeper increase for males than for females from 14 to 17 years.

FIGURE 2: SELF-HARM AT AGES 14 AND 17

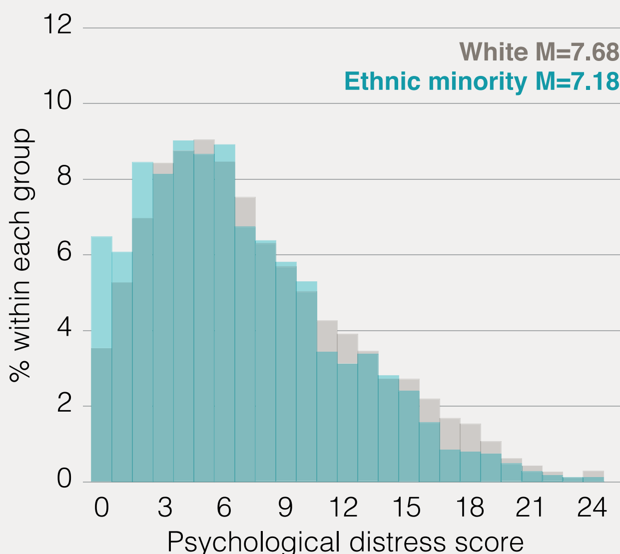


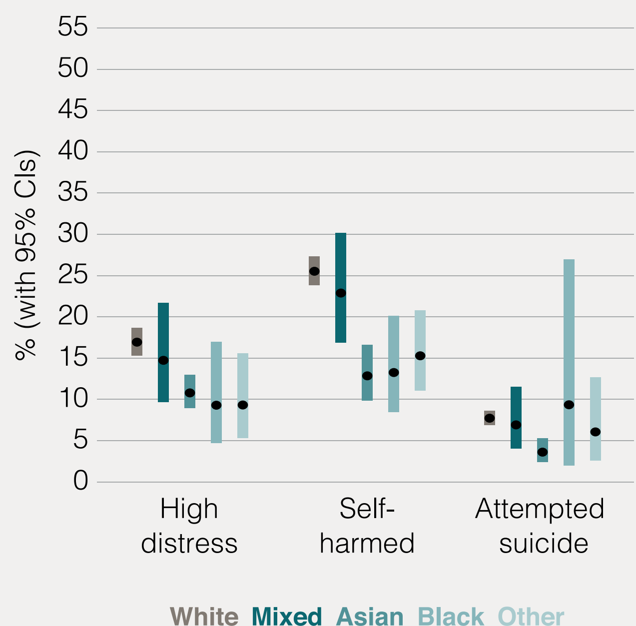
Differences by ethnicity

At age 17, 80.9% of participants were White ethnicity, with 3.0% mixed race, 10.9% Asian, 3.6% Black and 1.6% other ethnicities. As illustrated in Figure 3, psychological distress and self-harm were most prevalent in White young people, which is similar to what we observed for depressive symptoms at age 14 and has been reported in other UK studies.[7]

In contrast, rates of attempted suicide were similar across most ethnic groups, with a slightly lower prevalence reported by Asian young people.

FIGURE 3: DIFFERENCES BY ETHNICITY





Differences by sexuality

At age 17, cohort members reported on their sexual identity for the first time. Overall, 10.6% identified as non-heterosexual (6.6% males and 14.4% females), with 6.5% identifying as bisexual, 2.4% as gay or lesbian and 1.6% as other.

Our findings show large disparities by sexuality in mental health outcomes at this age, consistent with previous research which has highlighted that sexual minority young people in the UK are particularly vulnerable to high mental health difficulties.[5,8]

Over half (55.8%) of LGB+ young people reported self-harming in the last year, compared to 20.5% among those who identify as mainly heterosexual. Among LGB+ young people, 21.7% reported having attempted suicide, compared to 5.8% among heterosexuals.

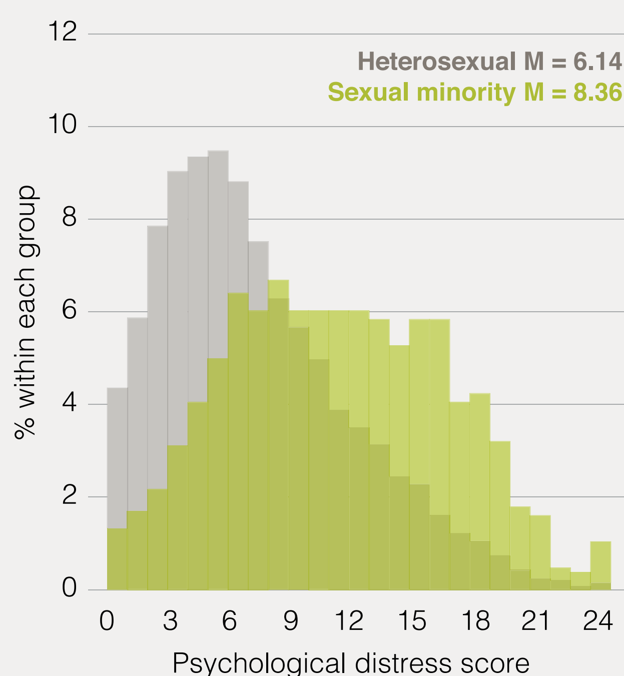
Differences by family income

An examination of the distribution of psychological distress highlights that the mean scores in the socioeconomically disavantaged group are overall only slightly higher. However, there is a little more variability in mental health difficulties among more disadvantaged participants, who are more likely to report high levels of psychological distress compared to their more advantaged peers, but also more likely to report low levels (see Figure 5).

Investigating prevalences by family income quintiles reveals that prevalences of high psychological distress and attempted suicide follow a similar socioeconomic pattern, with evidence of a gradient, as has been reported previously for this generation.[7] In particular the most disadvantaged 40% have almost twice the rates of attempted suicide (almost 12%) when compared with those with higher family incomes (around 6%).

Self-harming behaviour was not clearly patterned by family income, with rates of self-harming broadly similar across all quintiles of family income.

FIGURE 4: **DIFFERENCES BY SEXUALITY**



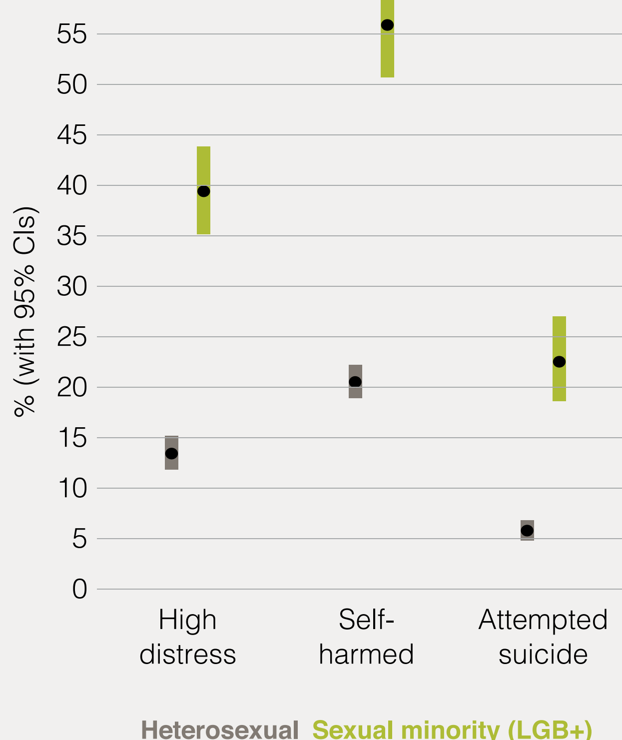
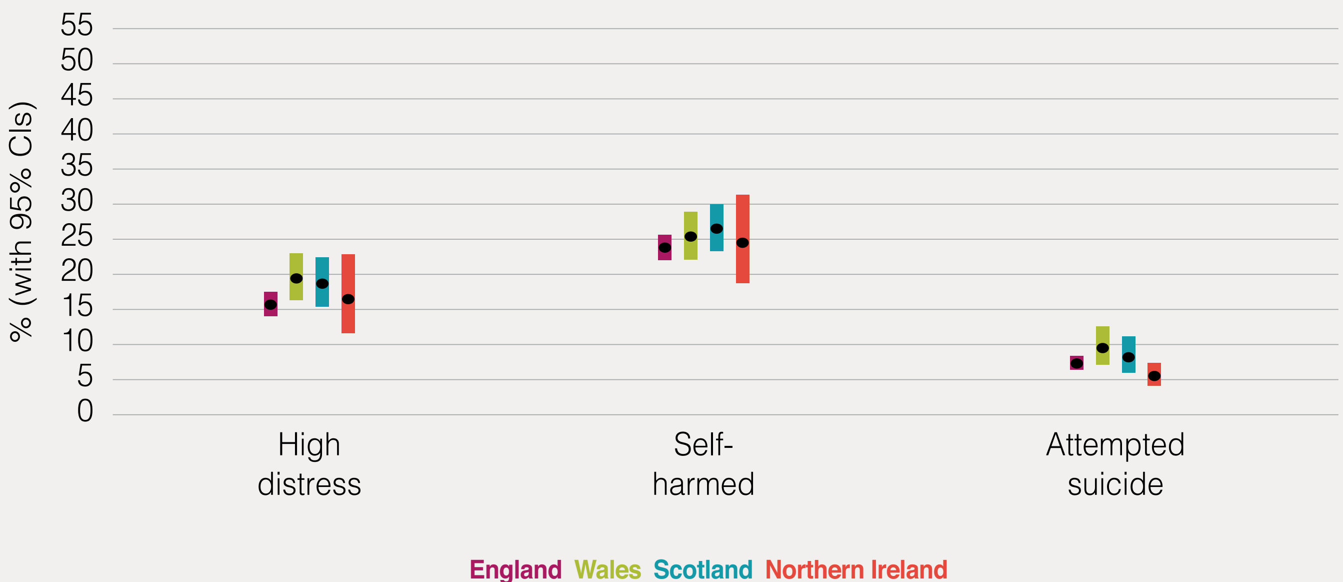


FIGURE 5: DIFFERENCES BY FAMILY INCOME

Differences by country

Given mental health and healthcare are within the remit of devolved governments, we present the prevalences for England, Wales, Scotland and Northern Ireland separately in Figure 6. As can be seen, rates are similar across all four nations for all three outcomes considered in this report.

FIGURE 6: DIFFERENCES BY COUNTRY

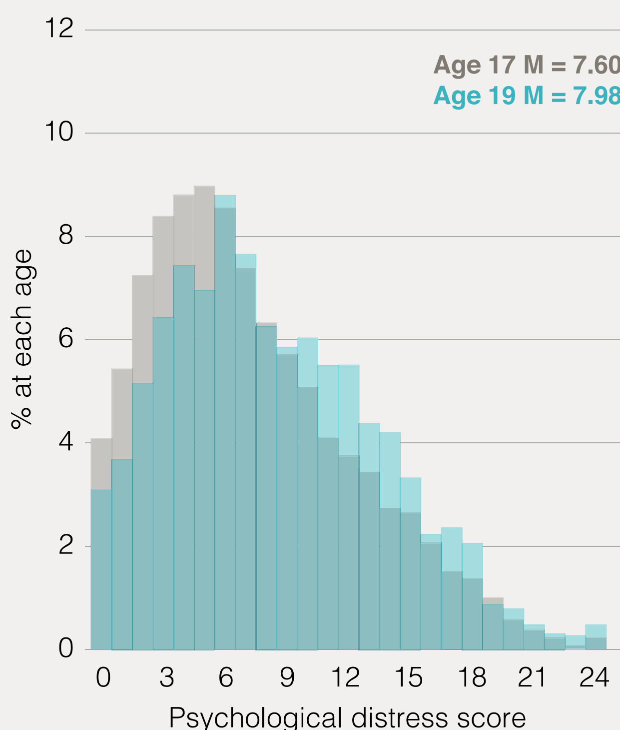


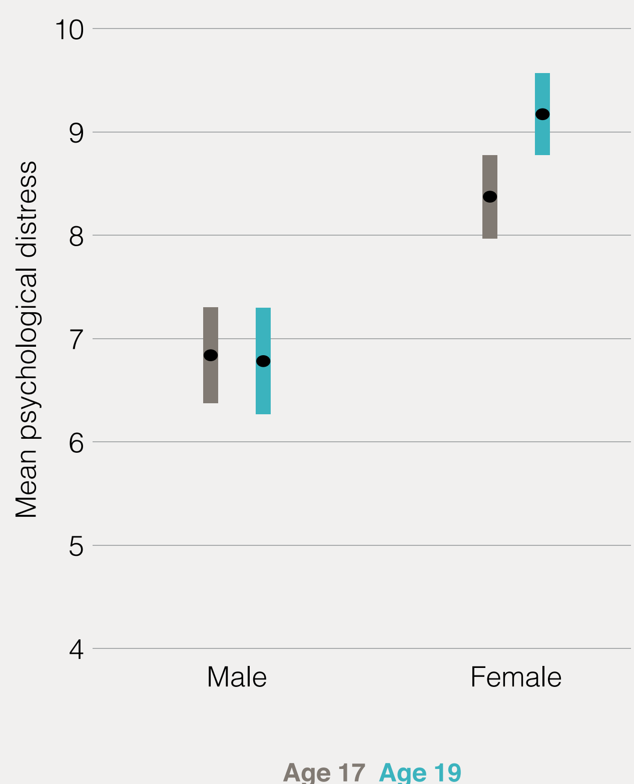
COVID-19 data: changes from age 17 to age 19

A total of 2,289 cohort members completed the psychological distress measure at age 17 and at age 19 during lockdown. Among this subset of participants, the overall prevalence of high psychological distress is very similar at both ages: 18.2% at age 17 and 18.9% at age 19.

When we compare change between ages 17 and 19 by sex, we find the prevalence of psychological distress has increased over this period for females but not for males. It is important to note that this change in mental health between ages 17 and 19 will reflect change that may naturally occur at this stage of life, as well as change attributable to the pandemic. However, this finding is consistent with other studies showing that young women are experiencing the largest increase in mental ill-health during the pandemic.[9]

FIGURE 7: CHANGES FROM AGE 17 TO AGE 19





> At age 17 the rates of self-harming between males and females were much more similar than they had been at 14, highlighting a much steeper increase for males than for females from 14 to 17 years

Conclusions

The findings of this report highlight 1) high prevalences of severe mental health difficulties in adolescents aged 17, and 2) large socio-demographic inequalities in the experiences of severe mental health difficulties at this age.

Increasing rates of mental health difficulties in this generation have been reported consistently, with very high prevalences of common mental health difficulties reported in large school-based and population-based studies to date. This report highlights that these increasing prevalences are also present for more severe indicators of mental illness, including self-harm, and self-harm with suicidal intent. At age 14, around 16% of cohort members reported self-harming ever, and now at age 17 the 12-month prevalence of self-harm is almost 26%, highlighting large increases in the short span of three years in mid-adolescence. High prevalence estimates have also been reported across wider age groups in the 2017 Mental Health of Children and Young People in England (MHCYP) Study, with over 15% of 17-19 year olds reporting ever self-harming.

Our findings reflect well-established higher levels of mental health difficulties among females compared to males. However, the gaps in self-harm behaviour by sex are considerably narrower than at earlier ages (8.5% males, 22.8% females at age 14, compared to 20.1% males, 28.2% females at age 17), reflecting the steeper increase in self-harm rates among males than females, between 14 and 17.

Ethnic differences are similar to those reported elsewhere for this generation whereby White, followed by mixed race young people, report the highest levels of distress.[7] An exception is attempted suicide, which demonstrates few ethnic differences. The reasons for observed ethnic differences in distress and self-harm (where White adolescents report higher distress and self-harm) and the lack of ethnic differences in attempted suicide might include discrepancies in use and access to services, whereby evidence suggests lower access to mental health support in ethnic minority groups.[10,11]

Sexual minority young people report the highest prevalences of these serious mental health outcomes. They experience very high levels of psychological distress. More than half (55.8%) report self-harming in the last 12 months and over 20% report attempting suicide, compared to 20.5% and 5.8% respectively of their heterosexual peers. Our findings highlight the need to better support this group and for parents, educators and clinicians to be aware that sexual minority adolescents might be particularly vulnerable and need appropriate support, as they often also suffer from greater bullying, victimisation and a host of adverse co-occurring health related outcomes.[5]

In a subset of over 2,000 cohort members who responded to a survey in May 2020 when the cohort were aged 19, at the height of the first COVID-19 national lockdown, we see small increases in psychological distress from age 17 to age 19. This increase is observed among females but not males. The additional pressure the COVID-19 pandemic is likely to have put on a generation already facing major mental health issues needs to be closely examined in the coming months and years.

Age 17 marks an important age before many major life transitions, including the ending of compulsory education and, for some, moving away from home. With support from Child and Adolescent Mental Health Services ending (CAMHS) around this critical age, many young people experience a gap in their care as they move to Adult Mental Health Services, potentially further worsening outcomes at the precise time when support is most required.[12]

These findings underline the urgent mental health support need in this generation. On the cusp of adulthood, they warn of a further widening in health, economic and social inequalities by sex, ethnicity, sexuality and socioeconomic position.

Implications for policymakers

- In a major survey carried out in 2018-19 in a nationally representative cohort when they were 17 years old, we found that substantial numbers of teens had high psychological distress and are self-harming. A concerningly high percentage, just over 7%, also reported having attempted suicide. To stop young people reaching this point in future, the Government should provide dedicated and sustainable funding for preventative and early intervention and support services in local communities and education settings.

- Young people should not be left without support when they turn 18. Where not already doing so, Child and Adolescent Mental Health Services (CAMHS) should continue to provide support to young people who have turned 18 and who would normally be moving to Adult Mental Health Services. Local areas should consult with young people when planning responses to mental health needs and designing services, to make sure young people can access support in a way that works best for them and meets their needs.

> “These findings underline the urgent mental health support need in this generation”

- Sexual minority young people need better and more targeted support to prevent the high proportions self-harming and attempting suicide. The Government should tackle the stark sexuality-based mental health inequalities we have highlighted:
  - More inclusive relationships education in schools should be promoted.
  - Homophobic, biphobic and transphobic bullying should be tackled.
  - Government and local areas should work with sexual minority young people to make sure mental health services are designed to meet their needs and provide whole-family support.
  - Measures to reduce the risks faced by young people who identify as sexual minorities should be included in national and local self-harm and suicide prevention plans.

- We observe a small increase in psychological distress from age 17 to age 19 (during the May 2020 lockdown) for females but not for males, though the extent to which this is attributable to the pandemic cannot be known, and likely also reflects developmental change. As the pandemic progresses, it is important to assess if these high prevalences of poor mental health, and inequalities therein, change for this generation of young people. During the current crisis and given the uncertainties about the future, additional protections should be put in place to help young people make the transition to adulthood. This could include funding services that help with planning the move into university, training or work and better mental health and wellbeing support in these settings.

Notes

1 Royal College of Psychiatrists. (2010). **No health without public mental health. The case for action**. Position Statement PS4/2010.

2 Patalay, P. and Fitzsimons, E. (2017). **Mental ill-health among children of the new century: trends across childhood with a focus on age 14**. London: Centre for Longitudinal Studies.

3 Patalay, P. and Gage, S. (2019). **Changes in millennial adolescent mental health and health-related behaviours over 10 years: a population cohort comparison study**. International Journal of Epidemiology, Volume 48, Issue 5, Pages 1650–1664, https://doi.org/10.1093/ije/dyz006

4 Based on cohort members' reports of sexual attraction at age 14 (at age 17 we include self-reported sexual identity).

5 Amos, R., et al. (2020). **Mental health, social adversity, and health-related outcomes in sexual minority adolescents: a contemporary national cohort study**. The Lancet Child & Adolescent Health 4(1): 36-45.

6 Kessler, R. C., et al. (2010). **Screening for serious mental illness in the general population with the K6 screening scale: results from the WHO World Mental Health (WMH) survey initiative**. International journal of methods in psychiatric research 19(0 1): 4.

7 NHS Digital. (2018). **Mental Health of Children and Young People in England, 2017**. London, Government Statistical Service.

8 Irish, M., et al. (2019). **Depression and self-harm from adolescence to young adulthood in sexual minorities compared with heterosexuals in the UK: a population-based cohort study**. The Lancet Child & Adolescent Health 3(2): 91-98.

9 Pierce, M., et al. (2020). **Mental health before and during the COVID-19 pandemic: a longitudinal probability sample survey of the UK population**. The Lancet Psychiatry 7(10): 883-892.

10 Edbrooke-Childs, J. and Patalay, P. (2019). **Ethnic Differences in Referral Routes to Youth Mental Health Services**. Journal of the American Academy of Child & Adolescent Psychiatry 58(3): 368-375. e361.

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Initial findings from the Millennium Cohort Study Age 17 Survey

This briefing is one of a series on different topics, based on the most recent MCS data.

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About the Millennium Cohort Study

The Millennium Cohort Study (MCS) is following the lives of 19,517 children born across England, Scotland, Wales and Northern Ireland in 2000-02.

MCS provides multiple measures of the cohort members' physical, socio-emotional, cognitive and behavioural development over time, alongside detailed information on their daily life, behaviour and experiences.

There have been seven main sweeps of MCS to date, at ages 9 months, 3, 5, 7, 11, 14 and 17 years. Additionally, cohort members are taking part in an online survey across the five British cohorts during the COVID-19 pandemic, providing vital data on how the pandemic is affecting this generation.

Given the rich data available in the study about the cohort members, their families and wider school and social contexts, researchers can utilise these data to understand the antecedents, development and consequences of mental ill-health using a range of statistical approaches.

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