RESULTS FROM THE "BROCK ADOLESCENT AND YOUTH RELATIONSHIP STUDY"

Research conducted by:
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Thank you!

To begin, the Developmental Processes in Health and Well-Being Lab would like to thank all of their participants who made this study possible. We deeply appreciate your time and willingness to take part in our research. Going forward, these findings will be used to help better support adolescents and their families.

Danielle Sirianni Molnar Ph.D.

Dawn Zinga Ph. D

When was the data collected?

Participants completed the study between October 2017 to November 2021. Data was collected at **four time points**:
- Timepoint 1: October 2017 to July 2020
- Timepoint 2: March 2018 to March 2021
- Timepoint 3: February 2019 to September 2021
- Timepoint 4: June 2020 to November 2021

What was happening during this time?

In March of 2020, schools in Ontario were closed down to mitigate the spread of COVID-19. School boards turned to online learning and students had to adjust to learning from home for the rest of the school year. Although there were staggered openings and closings of schools, students remained mostly online until September 2021, where most schools were either completely in-person (with some precautions), or incorporated in-person and online elements to learning. It is important to remember that students were under a lot of stress during this time of uncertainty.

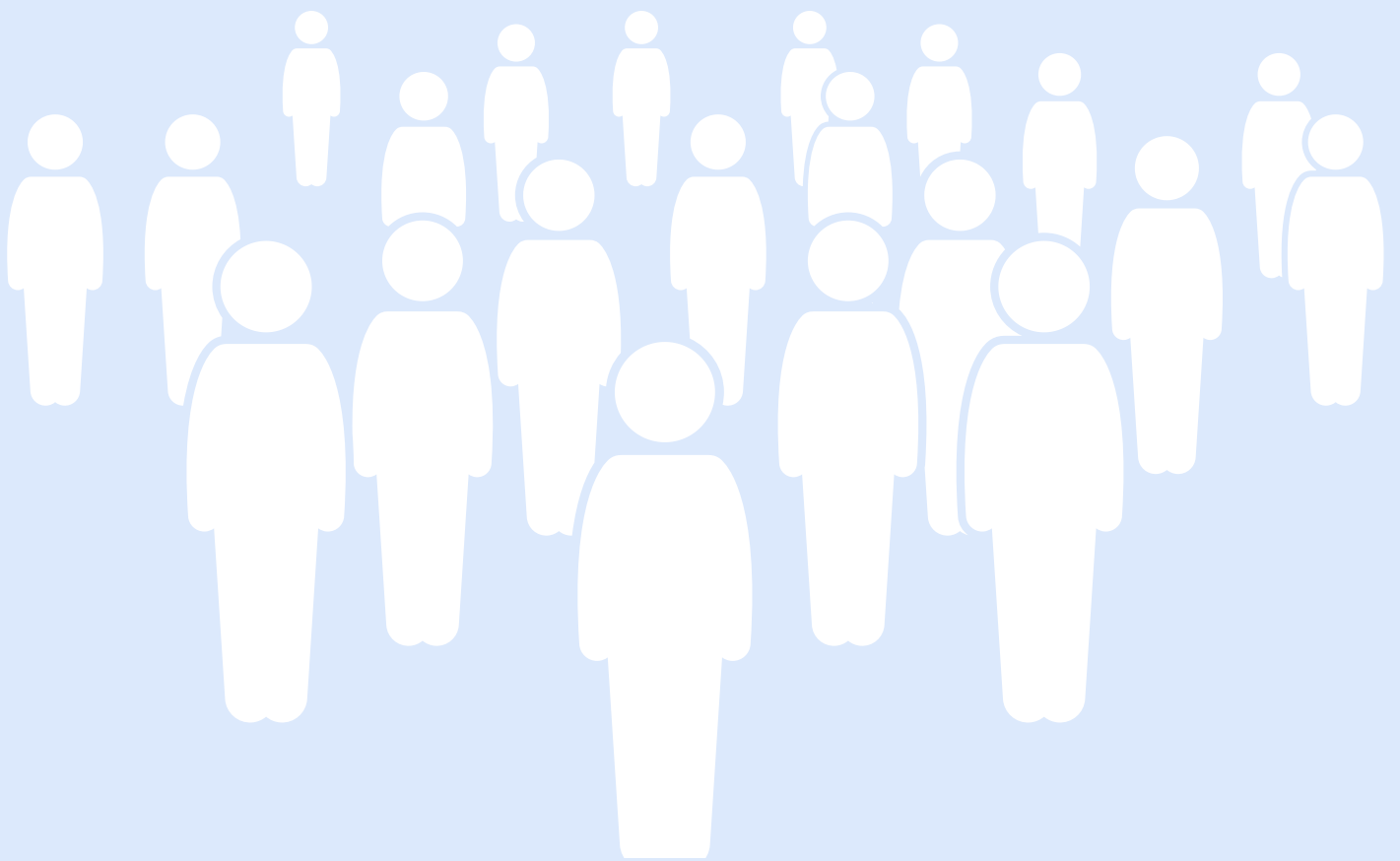Most participants started the study before the COVID-19 pandemic began (N = 262), and a subgroup started after the COVID-19 pandemic began (N = 100).
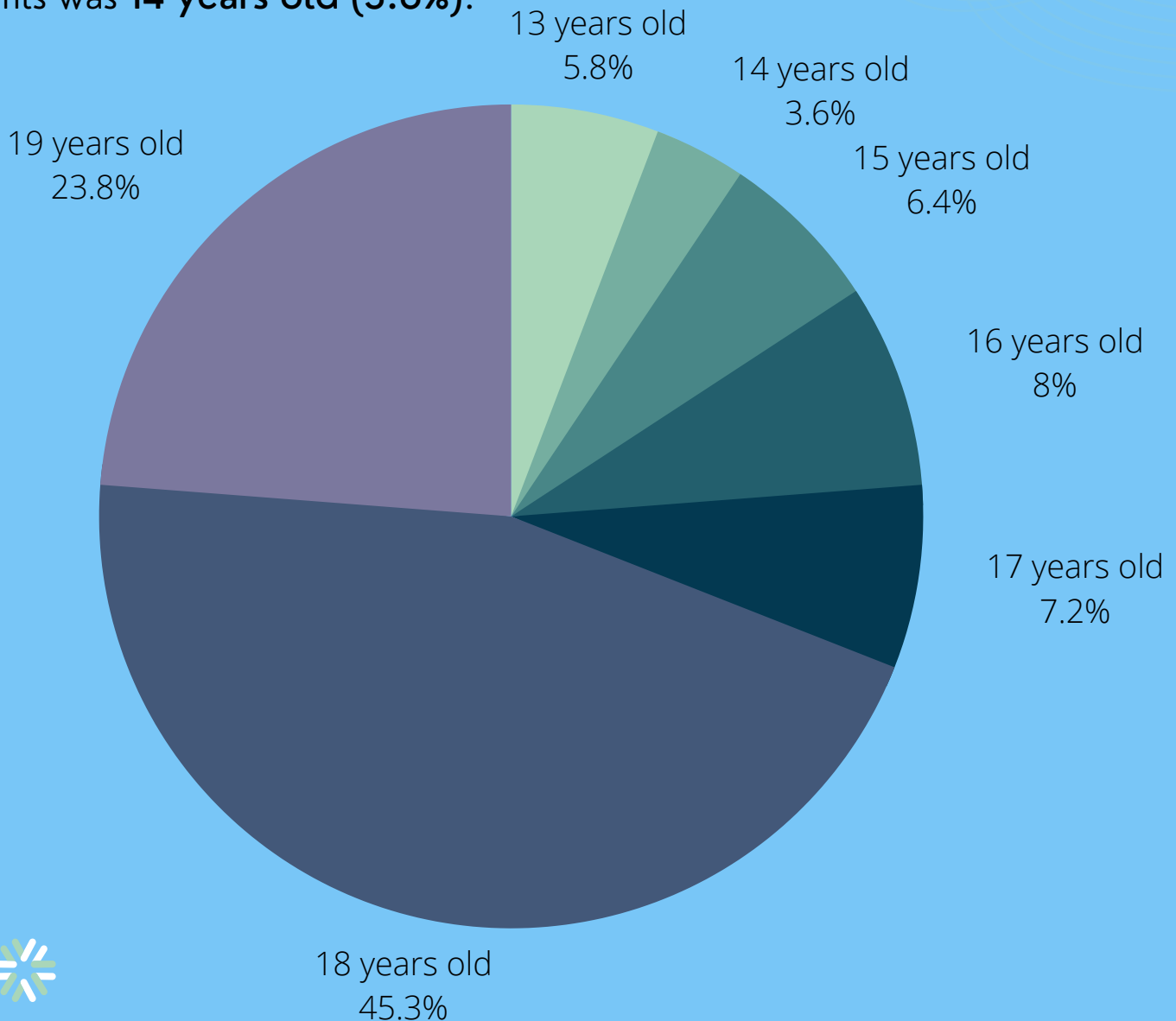
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PARTICIPANT DEMOGRAPHICS

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This study consists of a total of 362 participants. Overall, our sample is largely comprised of older adolescents who are female and White.

Participants ranged in age from **13 years old to 19 years old**. The average age of participants was **17.38 years old**. The largest age group of participants was **18 years old (45.3%)**, and the smallest age group of participants was **14 years old (3.6%)**.

13 years old
5.8%

14 years old
3.6%

15 years old
6.4%

16 years old
8%

17 years old
7.2%

18 years old
45.3%

19 years old
23.8%

PARTICIPANT DEMOGRAPHICS

Gender

Of the 362 participants, 112 participants (30.9%) identified as male, 249 participants (68.8%) identified as female, and 1 participant (0.3%) identified themselves as another gender orientation.

Other
0.3%

Male
30.9%

Female
68.8%
Your paragraph text

Other
5.5%

Asian Canadian
5.8%
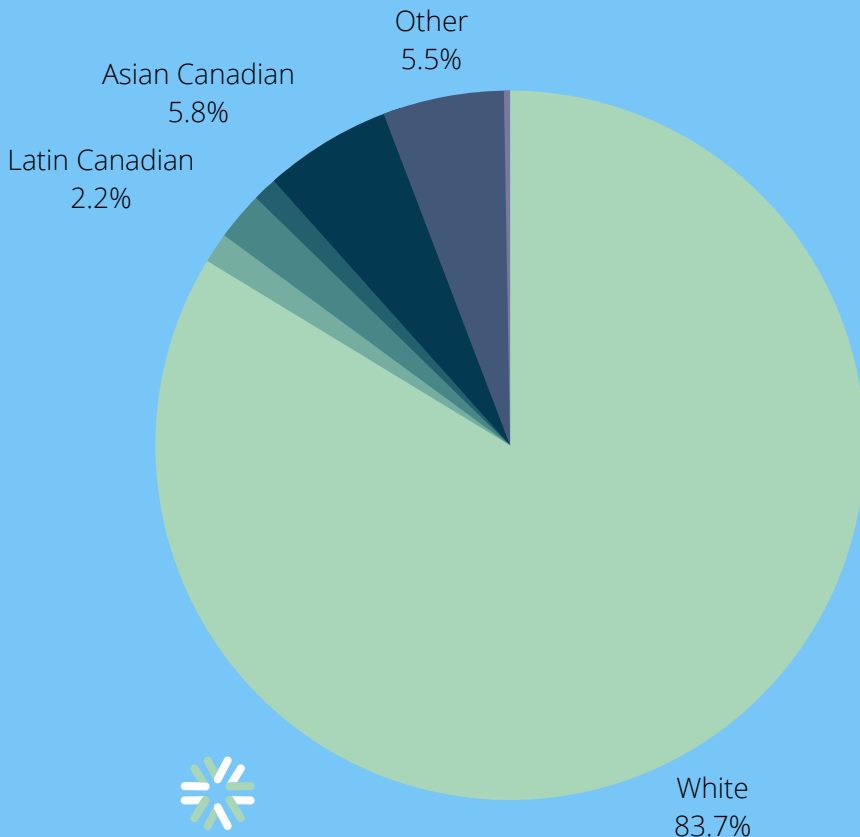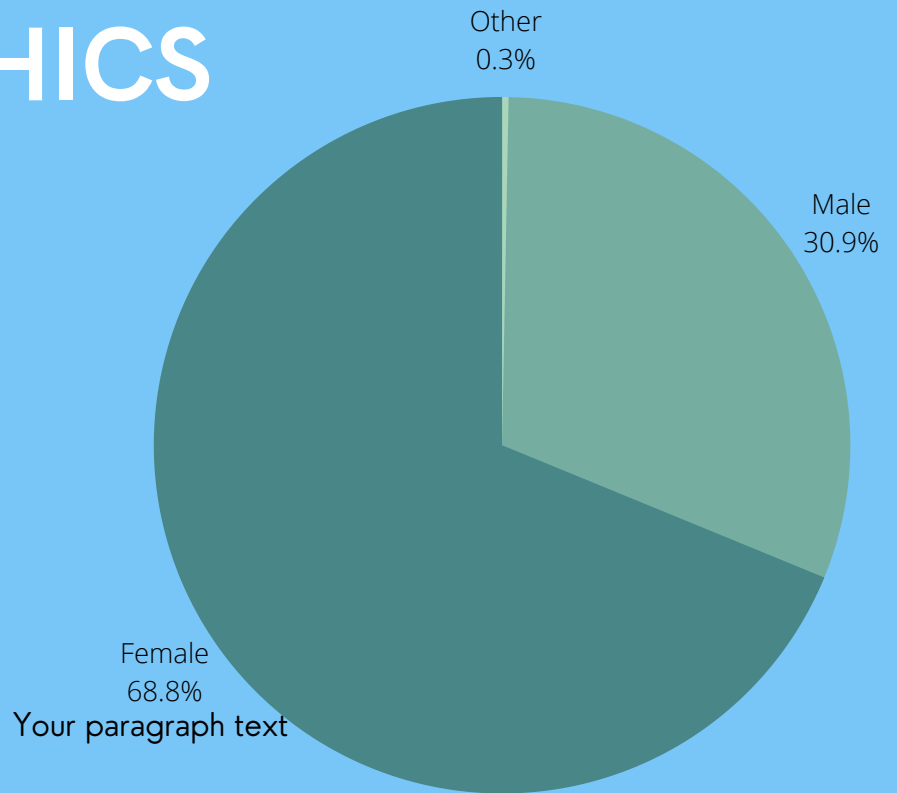
Latin Canadian
2.2%

Ethnicity

303 (83.7%) participants identified themselves as White, 5 (1.4%) identified themselves as Black, 8 (2.2%) as Latin Canadian, 4 (1.1%) as Indigenous Peoples in Canada, 21 (5.8%) as Asian Canadian, 20 (5.5%) as another ethnicity, and 1 (0.3%) preferred not to answer.

White
83.7%

PHYSICAL HEALTH

PHYSICAL HEALTH SYMPTOMS

Participants were asked about the number of health symptoms that they experienced. Some examples included headaches, a loss of appetite, and an upset stomach.

At the first timepoint, participants experienced an average of 13.16 health symptoms. At the last timepoint, participants experienced an average of 12.67 health symptoms.

Participants experienced **fewer** health symptoms at the second timepoint compared to the first timepoint, but there were no other differences in the number of physical health symptoms between timepoints.

2.2% Reported no symptoms at all at the first timepoint

3.1% Reported no symptoms at all at the last timepoint

3.6% Reported 10 symptoms at the first timepoint

5.4% Reported 10 symptoms at the last timepoint

MOST COMMON SYMPTOMS

Across the four timepoints, participants experienced the following symptoms most frequently:

Had trouble getting to sleep or staying asleep

Felt nervous, fidgety, or tense

Had fatigue or tiredness

INTENSITY OF PHYSICAL HEALTH SYMPTOMS

Participants were also asked about how often their physical health symptoms occurred, on a scale of 1 (never) to 5 (always). At both the first and last timepoint, participants experienced **lower-than-average** occurrence of health symptoms (Timepoint 1 mean = 2.25, Timepoint 4 mean = 2.15). There were no changes in the occurrence of health symptoms across the four timepoints.

Timepoint 1

2.25

1 (low occurence)   5 (high occurence)

Timepoint 4

1 (low occurence)   2.15

5 (high occurence)
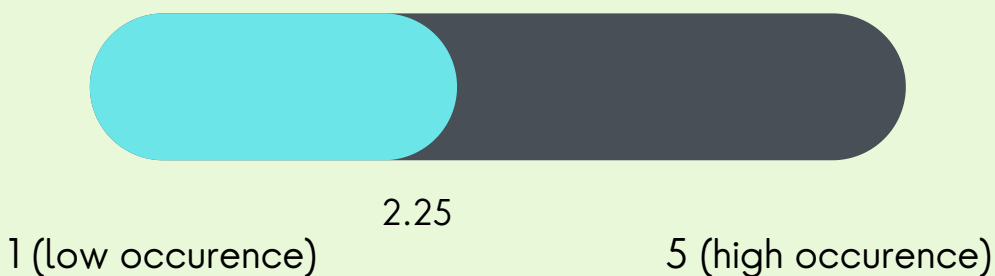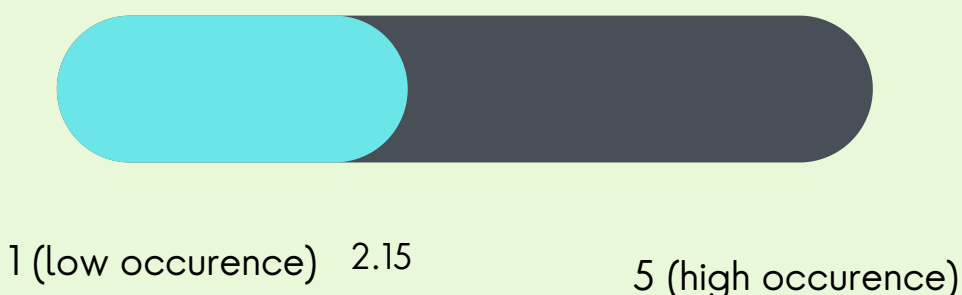
MENTAL HEALTH

PLEASE NOTE: The information presented is intended for information purposes only. It is not intended to be used as diagnostic criteria. The information in this report is NOT a substitute for advice by an appropriate health professional. If you are experiencing distress, please contact an appropriate health professional.

DEPRESSION

Participants were asked about the frequency with which they experienced depressive symptoms across the four timepoints on a scale from 0 (rarely) to 3 (all of the time) To be considered at risk for depression, participants have to score above an average score of 10. Many participants appeared to be at risk for depression such that 47% were at risk at the first time point and 38% were at risk at the last time point.

The graphs to the right depict the percentage of participants who met the clinical cut-off criteria for depression (i.e., scores greater than 10) at both the first and last timepoint.

Timepoint 1

Not at risk
53%

At risk for depression
47%

Timepoint 4

At risk for depression
38%

Not at risk
62%
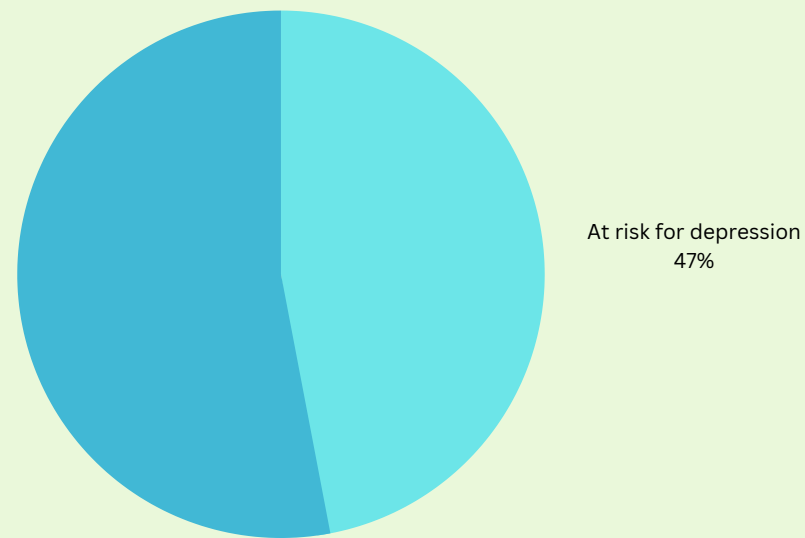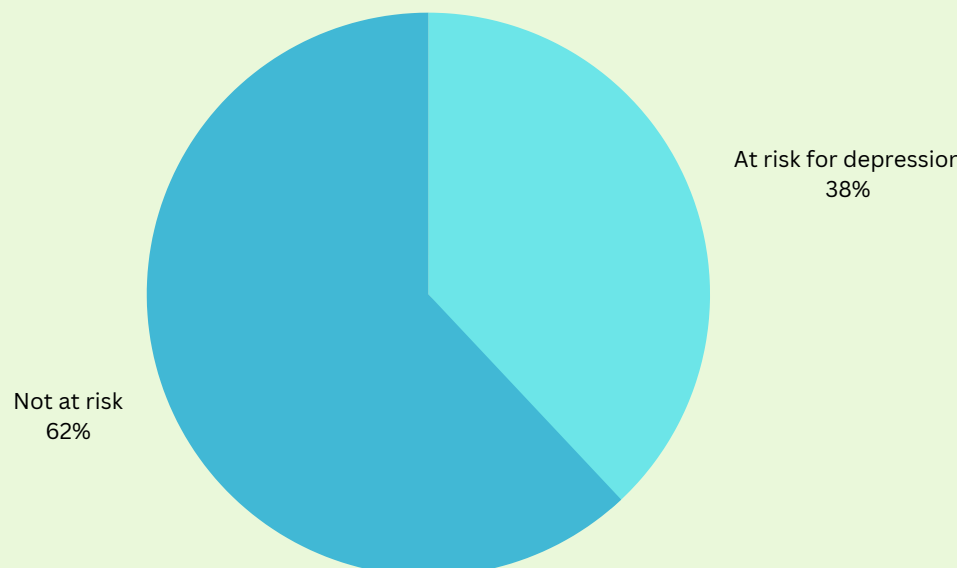
ANXIETY

Participants were asked if they experienced a variety of anxiety symptoms, including being nervous around others and worrying about what others think of them, responding either "Yes" or "No" to each symptom.
Based on their scores, participants were categorized in terms of how their levels of anxiety compare to the overall population, where they could be: Below Average, Average, Moderately Problematic, or Extremely Problematic.

Overall, our participants experienced an average amount of anxiety symptoms. There were no changes in the number of anxious symptoms participants experienced across timepoints.

Timepoint 1		Timepoint 4	
Below Average	13.8%	Below Average	16.6%
Average	49.2%	Average	27.6%
Moderately Problematic	22.7%	Moderately Problematic	15.5%
Extremely Problematic	12.2%	Extremely Problematic	10.5%
Missing	0%	Missing	29.8%

MOST COMMON ANXIETY SYMPTOMS

At Time 1 the common anxiety symptoms centered around the following:

- Telling lies
- Getting angry
- Worrying about making mistakes in front of others
- Being nervous when things do not go well
- Worrying about what other people think of them

At Time 4 the common anxiety symptoms centered around the following:

- Telling lies
- Getting angry
- Worrying about making mistakes in front of others
- Being nervous when things do not go well
- Trouble making up their minds
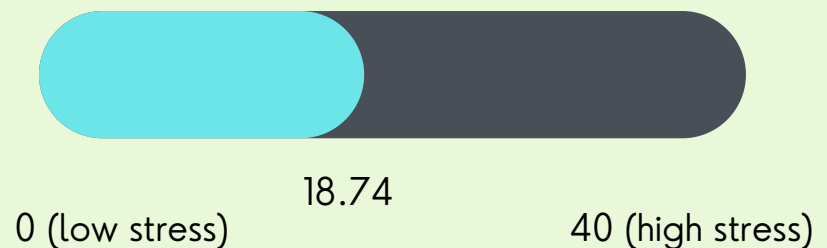- Worrying about the future

STRESS

Participants were asked about how frequently they experienced stressful situations in the last month, on a scale from 0 (never) to 4 (very often). At both the first and last timepoint, participants generally experienced lower than average stress (Timepoint 1 mean = 19.09, Timepoint 4 mean = 18.74).

Participants experienced an **increase** in stress from the second to the third timepoint, but there were no changes in stress between the other timepoints.

Timepoint 1

19.09

0 (low stress)   40 (high stress)

Timepoint 4

18.74

0 (low stress)   40 (high stress)
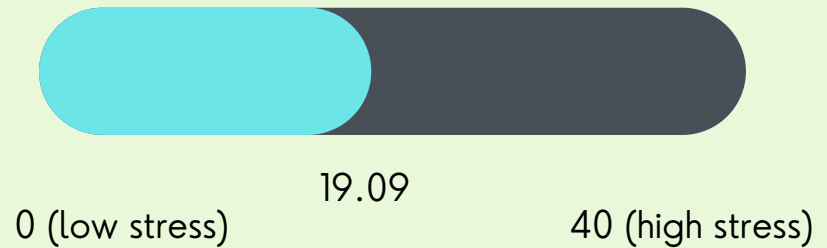
PERFECTIONISM

Self-Oriented Perfectionism (SOP)

An **intrapersonal** form of trait perfectionism characterized by a self-driven need to be perfect and achieve impossibly high standards, accompanied by harsh self-criticism.
(Hewitt & Flett, 1991)

Socially Prescribed Perfectionism (SPP)

An **interpersonal** form of trait perfectionism characterized by the belief that others expect perfection of you and that they will be harsh and unforgiving towards you if you fail to meet these standards.
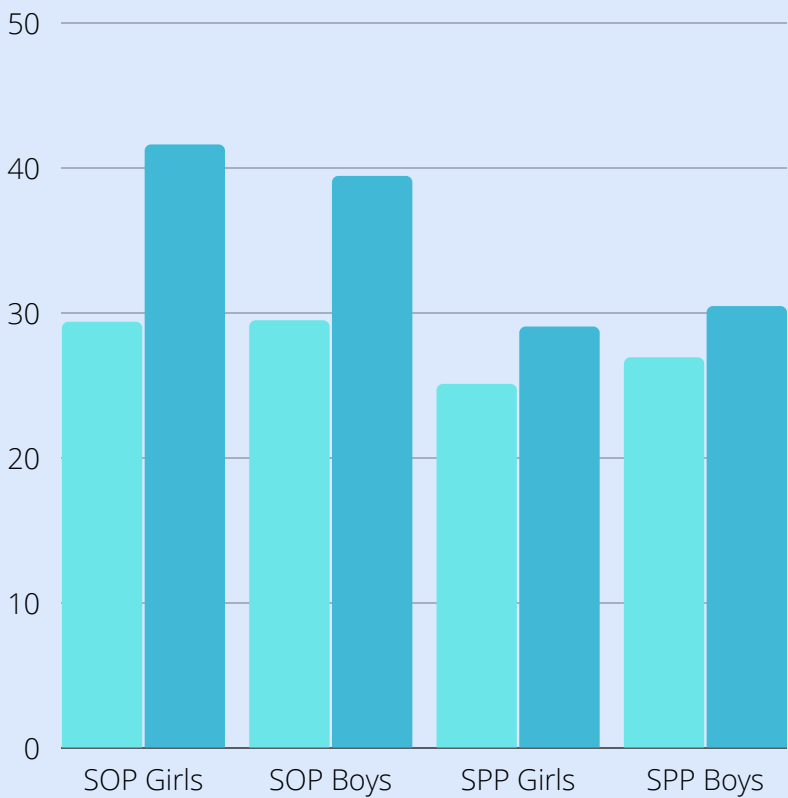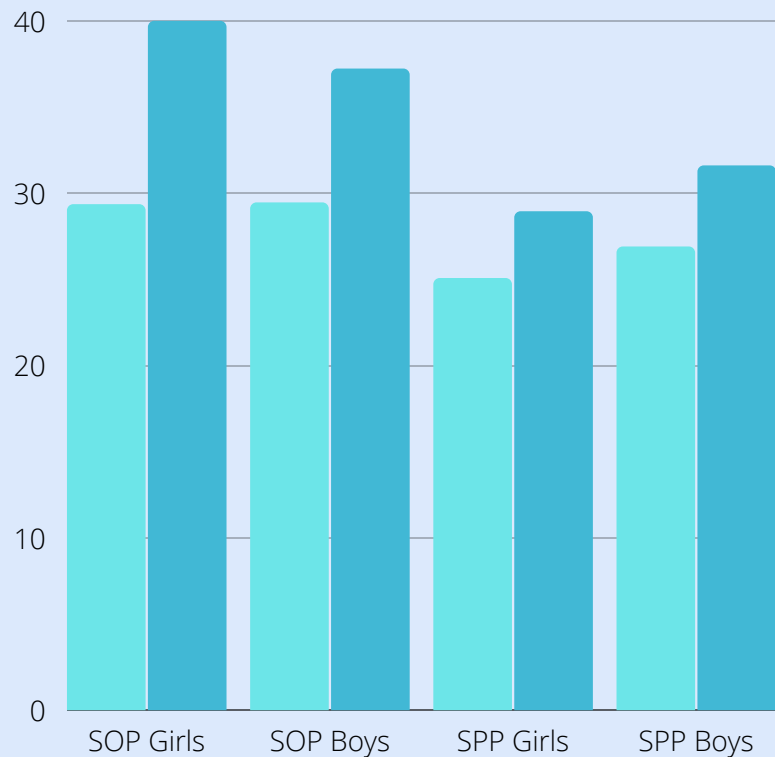(Hewitt & Flett, 1991)

PERFECTIONISM

Our sample is **higher** in self-oriented perfectionism and socially prescribed perfectionism compared to a normative sample of adolescents in the same age range at both the first and last timepoint.

Timepoint 1

Legend: ■ Normative Sample ■ Our Sample

(Bar chart — y-axis from 0 to 50)

	SOP Girls	SOP Boys	SPP Girls	SPP Boys
Normative Sample	~29	~29	~25	~27
Our Sample	~41	~39	~29	~30

Timepoint 4

Legend: ■ Normative Sample ■ Our Sample

(Bar chart — y-axis from 0 to 40)

	SOP Girls	SOP Boys	SPP Girls	SPP Boys
Normative Sample	~29	~29	~25	~27
Our Sample	~40	~37	~29	~31

SELF-ORIENTED PERFECTIONISM

We examined how perfectionism changed in teens across three time points of this study and how perfectionism was related to changes in stress, and psychological distress. We specifically looked at levels of perfectionism, stress, and psychological distress before the pandemic began, during the first government-mandated lockdown, and during the second government-mandated lockdown.
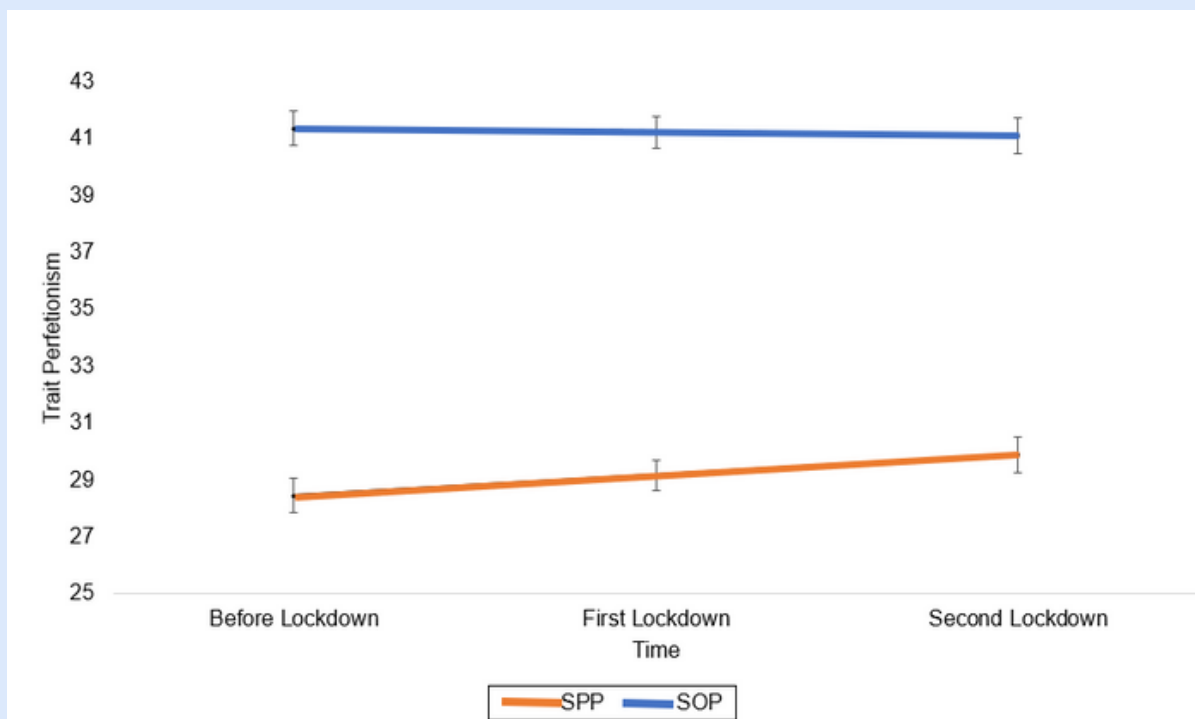
Self-oriented perfectionism (requiring perfection from the self) did not appear to change during the pandemic (at least up to the second lockdown when data collection stopped during this study).

To learn more about this study check out:
Molnar, D. S., Thai, S., Blackburn, M., Zinga, D., Flett, G. L., & Hewitt, P. L. (2022). Dynamic changes in perfectionism dimensions and psychological distress among adolescents assessed before and during the COVID-19 pandemic. Child Development, oo, 1– 18. https://doi.org/10.1111/cdev.13855

SOCIALLY PRESCRIBED PERFECTIONISM

Although self-oriented perfectionism (blue line in the graph) did not appear to change we did find evidence that other forms of perfectionism did change. Results revealed that socially prescribed perfectionism (believing that others demand perfection from you and are critical of you) has been increasing during the pandemic among teens (see orange line in the graph)!

Why did socially prescribed perfectionism increase during the pandemic, but not self-oriented perfectionism? One reason may be because teens were already so high on self-oriented perfectionism even before the pandemic began that they could not increase much more. A second reason could be because teens were spending much more time at home during the lockdowns and they may have perceived greater demands being placed on them by their families.

Perfectionism, Stress & Psychological Distress Across the Pandemic

We also discovered that perfectionistic teens are not doing as well compared to their non-perfectionistic peers during the pandemic.

Teens who tended to demand perfection from themselves (self-oriented perfectionists) were more depressed, anxious, and stressed than those who did not tend to demand perfection from themselves over the course of the pandemic.

Results also showed that when teens experienced higher than their typical levels of self-oriented perfectionism, they were also more anxious, but not more depressed or stressed.

Teenagers who believed that others demanded perfection from them (socially prescribed perfectionists) were more depressed and stressed than those who did not have such beliefs during the pandemic. We also found that when teens experienced more of these beliefs than usual, they were more depressed, but not more anxious or stressed.
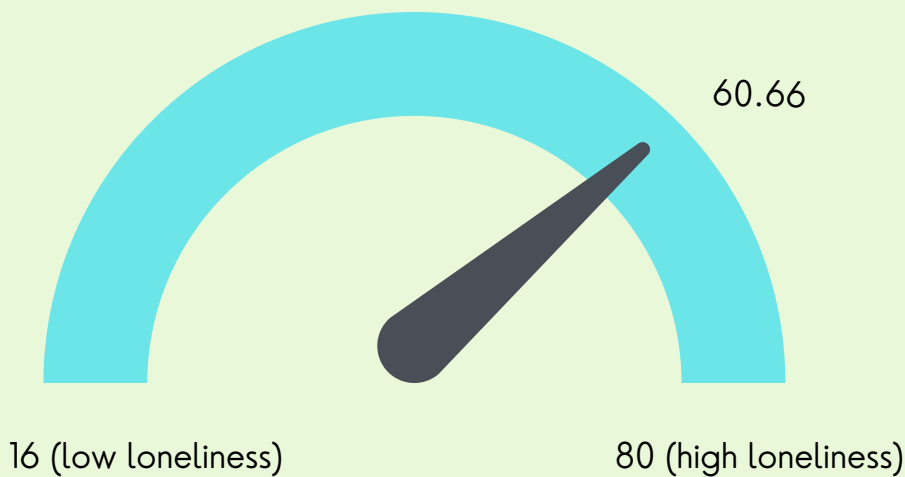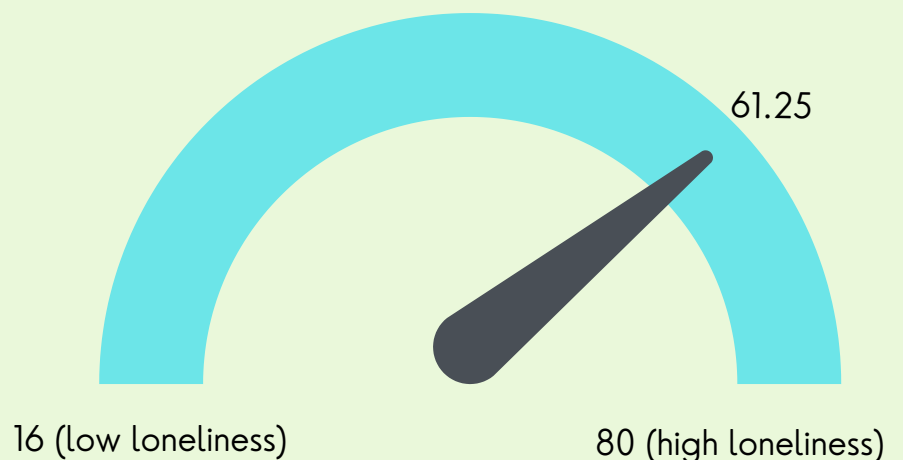
SOCIAL CONNECTION

LONELINESS

In our sample, participants answered questions about how lonely they were, on a scale from 1 (not at all true) to 5 (always true). Scores ranged from 16 (low loneliness) to 80 (high loneliness). At both the first and last timepoint, our participants fell at the higher end of the spectrum, demonstrating that they felt fairly lonely (Timepoint 1 mean = 60.66, Timepoint 4 mean = 61.25). At the first timepoint, scores of loneliness ranged from 27 to 80.

There appeared to be little to no change in how lonely participants felt across the timepoints.

Timepoint 1

60.66

16 (low loneliness)　　　　　　80 (high loneliness)

Timepoint 4

61.25
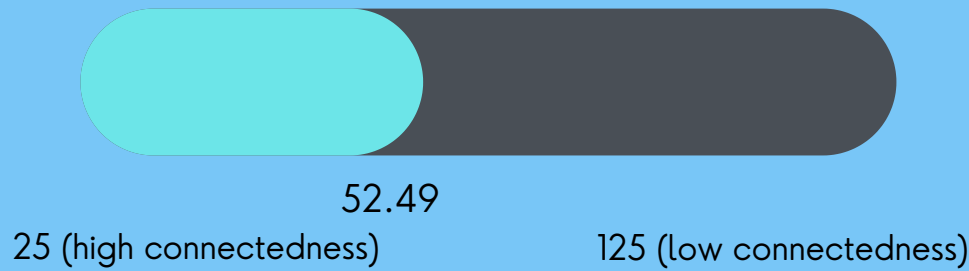
16 (low loneliness)　　　　　　80 (high loneliness)
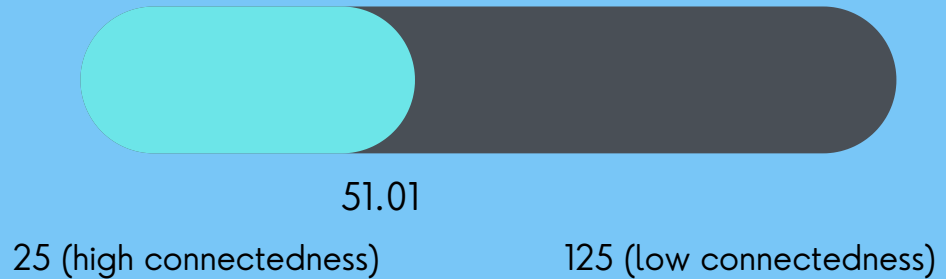
SCHOOL CONNECTEDNESS

Overall, our participants felt fairly connected to their schools. On a scale from 1 (strongly agree) to 5 (strongly disagree), where higher scores represented more disconnection to their school, participants at the first timepoint had an average score of 52.49. At the last timepoint, participants had an average score of 51.01.

There appeared to be little to no changes in levels of school connectedness across the four timepoints.

Timepoint 1

52.49

25 (high connectedness)   125 (low connectedness)

Timepoint 4

51.01

25 (high connectedness)   125 (low connectedness)

SOCIAL MEDIA HABITS

FRIENDS ON SOCIAL MEDIA

At the first timepoint, participants had an average of 299.11 friends on social media. at the last timepoint, participants had an average of 557.88 friends on social media. Participants had more friends on social media at the third timepoint compared to the first timepoint.

There were no other changes in the number of friends participants had across the four timepoints.

TIMEPOINT 1: FRIENDS ON SOCIAL MEDIA

Average Number of Friends	299.11
Minimum Number of Friends	3
Maximum Number of Friends	6500

TIMEPOINT 4: FRIENDS ON SOCIAL MEDIA

Average Number of Friends	557.88
Minimum Number of Friends	2
Maximum Number of Friends	55000

TIME SPENT ON SOCIAL MEDIA

At the first timepoint, participants spent an average of 3.81 hours online per day. At the last timepoint, participants spent an average of 3.07 hours online per day.

Compared to the first and second timepoint, participants **decreased** the amount of time they spent online by the last timepoint.

AVERAGE DAILY TIME SPENT ONLINE:

Timepoint 1: 3.81 hours

Timepoint 4: 3.07 hours

SOCIAL MEDIA INVESTMENT

Participants answered questions about their investment in social media, on a scale from 1 (strongly disagree) to 5 (strongly agree), where higher scores represented more investment in social media. Investment is defined as emotional attachment and integration of social media into daily activities.

At both the first and last timepoint, participants had **high investment** in their social media (Timepoint 1 mean = 3.93, Timepoint 4 = 3.

Timepoint 1

3.93

1 (low investment)   5 (high investment)

Timepoint 4

3.92

1 (low investment)   5 (high investment)
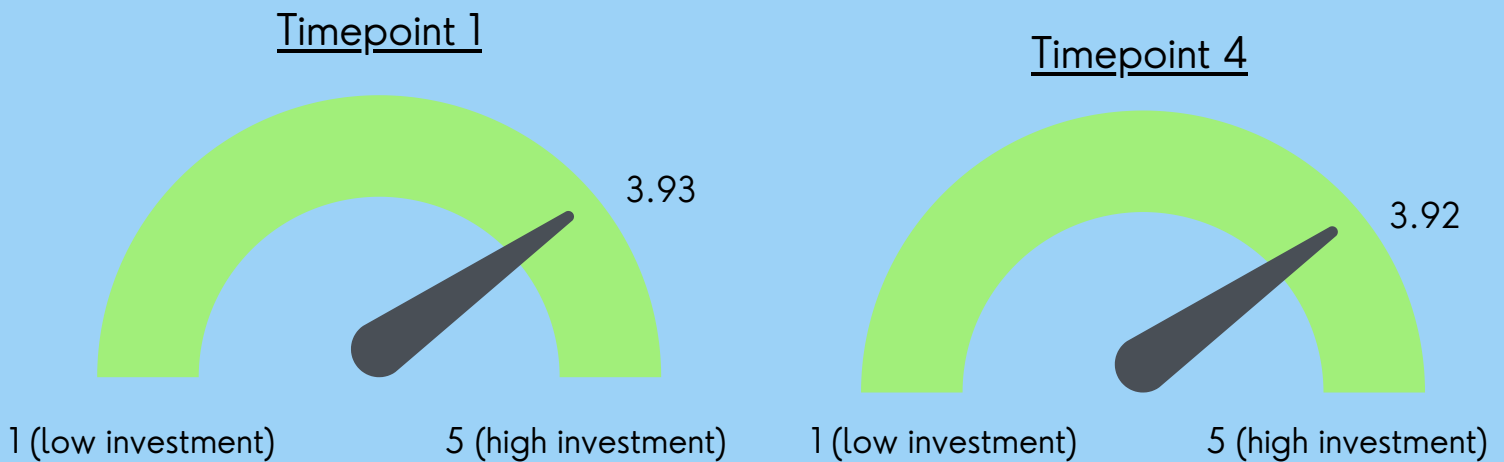
♥ 142 💬 37 👤 27

THE BOTTOM LINE

Some key findings were the high levels of perfectionism, depressive symptoms, and loneliness among teens. These are concerning findings suggesting that many teens are not faring well during the pandemic. The pandemic appeared to heighten perfectionism, depressive symptoms, and loneliness among teens. Thus, parents, educators, and clinicians are encouraged to look for signs of these among teens to ensure that teens are able to access help if needed.

For more information on the connection between COVID-19 and adolescent's mental and physical health, check out our blog: "The Young & The Perfectionistic", where we discuss some of our recent findings about how adolescents have been coping with the pandemic. Please visit our website for future findings, as we update it regularly.

Stay tuned for more exciting findings from this study!

dphwb

DEVELOPMENTAL PROCESSES IN
HEALTH & WELL-BEING LAB

FUNDING ACKNOWLEDGEMENT

STAY TUNED FOR FUTURE FINDINGS....

Interested in learning more about the research done in The Developmental Processes in Health & Well-Being Lab? Check out our website and social media below!

Website: https://brocku.ca/dphwb/

Blog: https://brocku.ca/dphwb/blog-posts/

Instagram: @dphwb_lab

Email: dphwblab@brocku.ca

References

COVID-19 and Education Disruption in Ontario: Emerging Evidence on Impacts. (2021, June 16). Ontario COVID-19 Science Advisory Table. https://covid19-sciencetable.ca/sciencebrief/covid-19-and-education-disruption-in-ontario-emerging-evidence-on-impacts/#:%7E:text=From%20March%2014%2C%202020%2C%20to,declared%20a%20state%20of%20emergency.

Hewitt, P, L., & Flett, G. L. (1991). Perfectionism in the Self and Social Contexts: Conceptualization, Assessment, and Association With Psychopathology. *Journal of Personality and Social Psychology, 60(3)*, 456–470. https://doi.org/10.1037/0022-3514.60.3.456