The Resilience Project (TRP) Education Program outcomes

Preliminary Snapshot Report

Report prepared by Dr. Mark Kohler & Dr. Amanda Santamaria,
The University of Adelaide, 23/01/2022.

1. Introduction

Australian children are increasingly experiencing mental health issues, including anxiety and depression. Interventions aimed at increasing resilience can lower the risk of mental illness and buffer the negative effects of stressful life events. Although some disagreement exists around the concept of resilience, it is generally agreed that resilience is a dynamic, context-dependent process whereby an individual displays positive adaptation to challenging or adverse circumstances. Interventions, such as school-based programs, can target specific elements of resilience at the level of the child. This preliminary analysis provides a snapshot of findings comparing outcomes over the years 2019, 2020 and 2021 in a large sample of Australian students who were part of The Resilience Project (TRP) school-based intervention program and compared to non-intervention (control) students. Data was collected using the Resilience Survey (Resilient Youth Australia) and was administered electronically during class time on a single occasion to students in each year.

2. Participants

Non-intervention (control) students consisted of 79,699 students of average age 13.3 years (SD = 2.5; range = 8-18 years). 20,506 (25.7%) of control students were in primary education, and 59,160 (74.3%) were in secondary education. 60% of control students were female, 37% male, 1% self-reported as "other", and 2% preferred not to report gender. 69.4% considered themselves Australian, 11.4% Asian, 6.3% European, 1.5% African, 1.4% Aboriginal and Torres Strait islander, 1.1% Māori or Pasifika, and 0.7% New Zealander. No prior participation in the TRP program was reported by control students.

Intervention (TRP) students consisted of 83,002 students of average age 11.5 (SD = 2.4; range = 8=18 years). 50,330 (60.6.7%) of TRP students were in primary education, and 32,672 (39.4.3%) were in secondary education. 47.9% of TRP students were female, 48.8% male, 0.6% "other" and 2.7% preferred not to say. 72.0% of TRP students considered themselves Australian, 9.2% Asian, 4.0% European, 3.1% Aboriginal and Torres Strait islander, 1.3% African, 1.2% Māori or Pasifika, and 0.9% New Zealander. Amongst TRP students, the average number of years' participation in the intervention program was 1.8, with a range from 1-5 years.

The following factors were taken from the survey and included in preliminary analyses:

PERSONAL WELLBEING FACTORS	
LIFE SATISFACTION	The Cantril Self Anchoring Scale; single item scale; score range = 1-8
DEPRESSIVE SYMPTOMS	Patient Health Questionnaire (PHQ-2), domain score; score range = 2-8
ANXIETY SYMPTOMS	General Anxiety Disorder (GAD-2), domain score; score range = 2-8
AVOIDANCE COPING	The Coping Strategies Inventory-avoidance sub-scale (CSI), domain score; score range = 4-16
HOPE	The Children's Hope Scale (CHS), domain score; score range = 6-36
SOCIAL ENVIRONMENT FACTORS	
PERCEIVED SCHOOL SUPPORT	Factor derived domain score assessing level of support from school; score range = 1-4
PERCEIVED FAMILY SUPPORT	Factor derived domain score assessing level of support from family; score range = 1-4
PERCEIVED PEER SUPPORT	Factor derived domain score assessing level of support from friends and peers; score range = 1-4
SOCIABILITY	Factor derived domain score assessing level of social interaction and social skill; score range = 1-4
POSITIVE BEHAVIOUR ITEMS	
HEALTHY EATING	Single item: "I eat well to stay well"; score range = 1-4
ADEQUATE SLEEP	Single item: I get at least 8 hours sleep most nights"; score range = 1-4
PHYSICALLY ACTIVE	Single item: "I keep myself fit"; score range = 1-4
NEGATIVE BEHAVIOUR ITEMS	
BULLIED AT SCHOOL	Single item: "In the last school term I have been bullied at school"; score range = 1-4
DRINK ALCOHOL	Single item: "I drink alcohol"; score range = 1-4
SMOKE CIGARETTES	Single item: "I smoke cigarettes"; score range = 1-4
INTEND TO HURT OTHER	Single item: "In the last school term I threatened to physically hurt someone"; score range = 1-4

3. Outcomes

Differences between TRP and control groups as a function of year broadly demonstrates trends supporting the benefits of the TRP program for student wellbeing, social support, increases in positive, and reductions in negative behaviour.

Considering measures of psychological wellbeing, TRP participants tended to maintain consistently good levels of functioning over the three years. In contrast, wellbeing tended to decline for control participants, and this decline was most apparent in 2021. Figure 1 below shows the progressive increase in symptoms of depression and anxiety and levels of avoidance coping, as well as a progressive decrease in feelings of hope and ratings of life satisfaction amongst control students from 2019 to 2021 (red lines). TRP students are displayed in blue lines and show good levels of wellbeing across all domains, similar to control students in 2019 but remaining stable over time in contrast to the decline seen for controls. Overall, the results from measures of wellbeing suggest the TRP program is beneficial to student wellbeing through a mechanism whereby higher levels of wellbeing are maintained in students, in contrast to the otherwise national trend of declining wellbeing in Australian students from 2019 to 2021.

For social measures a similar pattern was seen for peer, family and school support, with relatively stable, or slightly increased, perceived support over time for TRP students compared to a steady decline in perceived support over time for control students (See Figure 2 below). Interestingly, even where perceived support was initially greater for control students (see family and peer support in Figure 2), the decline in control students coupled with slight increase in TRP students over time meant greater perceived support in all three domains amongst TRP students by 2020 and into 2021.

In contrast to measures of perceived social support, the measure of student sociability (a marker of an individual's social interaction and social skill) showed participants from both groups increasing in 2020 before a decline in 2021 to levels similar of 2019. Despite control participants performing slightly better in years 2019 and 2020 compared to TRP students, the greater drop in scores amongst control student for 2021 resulted in greater sociability score for TRP participants in this year (See Figure 2 below). Overall, these results suggest an

improvement in the social environment of TRP students over time, in contrast to an otherwise declining social pattern amongst Australian youth.

For healthy behaviours (eating well, keeping physically fit and getting adequate sleep) TRP students consistently showed elevated ratings across each year when compared to control students (See Figure 3 below). There was some indication of a decline in healthy behaviours for all students in 2021 (relative to 2019 and 2020), however again this decline was greater for control students. Combined, these results suggest students in the TRP program exhibit greater levels of healthy behaviour and are better able to maintain this behaviour in the face of broader society decline.

For negative behaviours participants also tended to show commensurate changes over time, however group comparisons for each behaviour varied across behaviour (See Figure 4 below). For smoking cigarettes and drinking alcohol, control students consistently reported a greater level of participation across all years. Concerningly, drinking of alcohol in control students increased in 2021 relative to 2019 and 2020, despite no change for TRP students.

In contrast to the general pattern of results between groups, there were greater reports of being bullied at school amongst TRP students. This difference remained stable across time, albeit the levels for both groups were considered low overall. In both groups, there was some evidence that rates of bullying at school are declining. Finally, rates of threatening to hurt someone where consistent between groups for 2019 and 2020, with reports declining between 2019 and 2020. In 2021 there was a slight increase in reports for control students relative to 2020, but a further decrease in reports for TRP students over the same period. Rates overall for this behaviour are considered low.
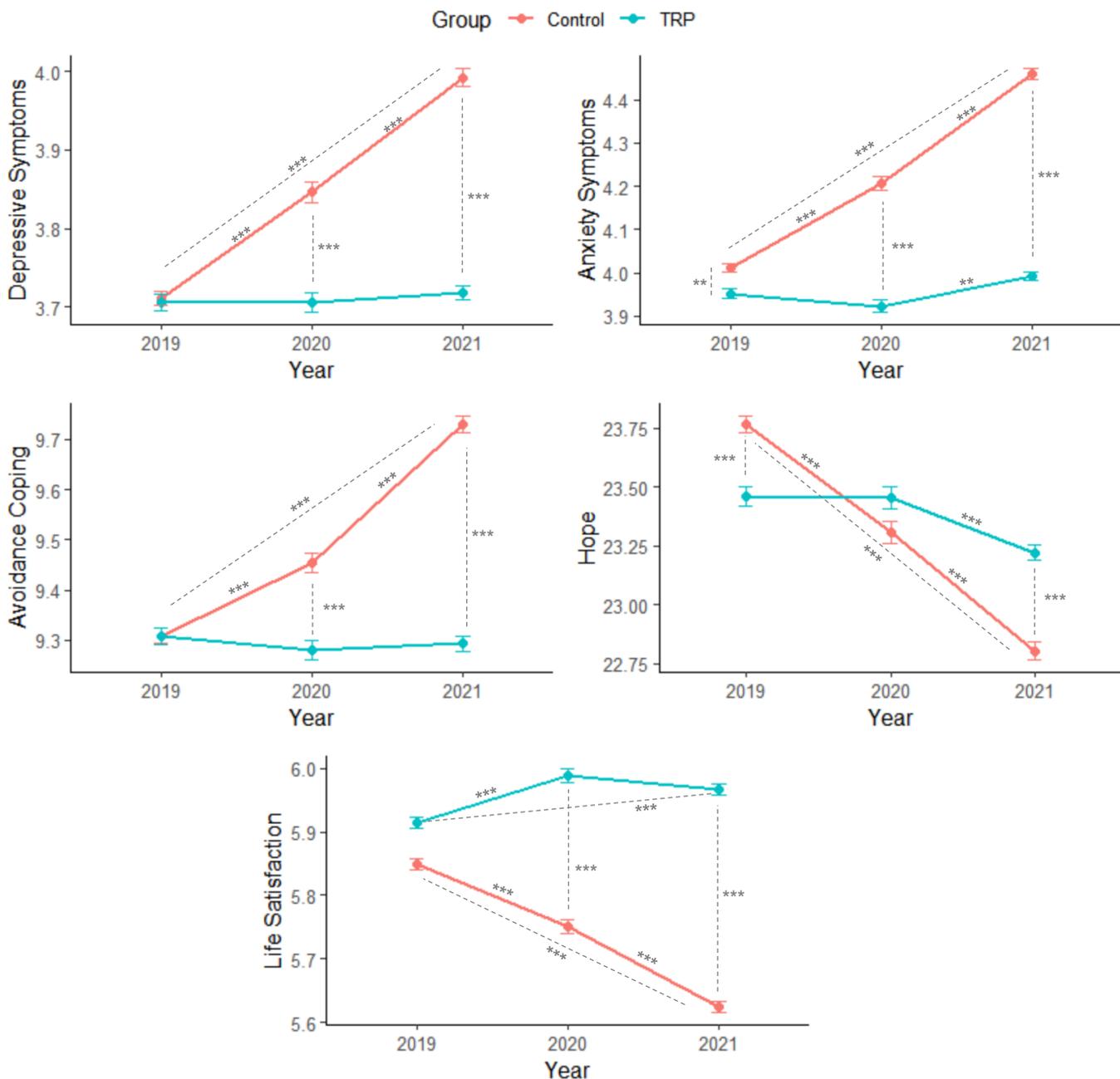
Figure 1. Australian student ratings of wellbeing across 2019, 2020 and 2021 for depression symptoms (top left), anxiety (top right), avoidance coping (middle left), feelings of hope (middle right), and ratings of overall life satisfaction (bottom middle). Ratings of students from the TRP program are displayed in blue, and control (non-TRP) students in red. Higher scores indicate greater severity of behaviour/attitude. Points represent mean group scores for the respective scales, with error bars representing standard error of the mean. Asterisks (and associated dotted lines) denote statistically significant differences of [* $p <.05$, **$p <.01$, ***$p <.001$].
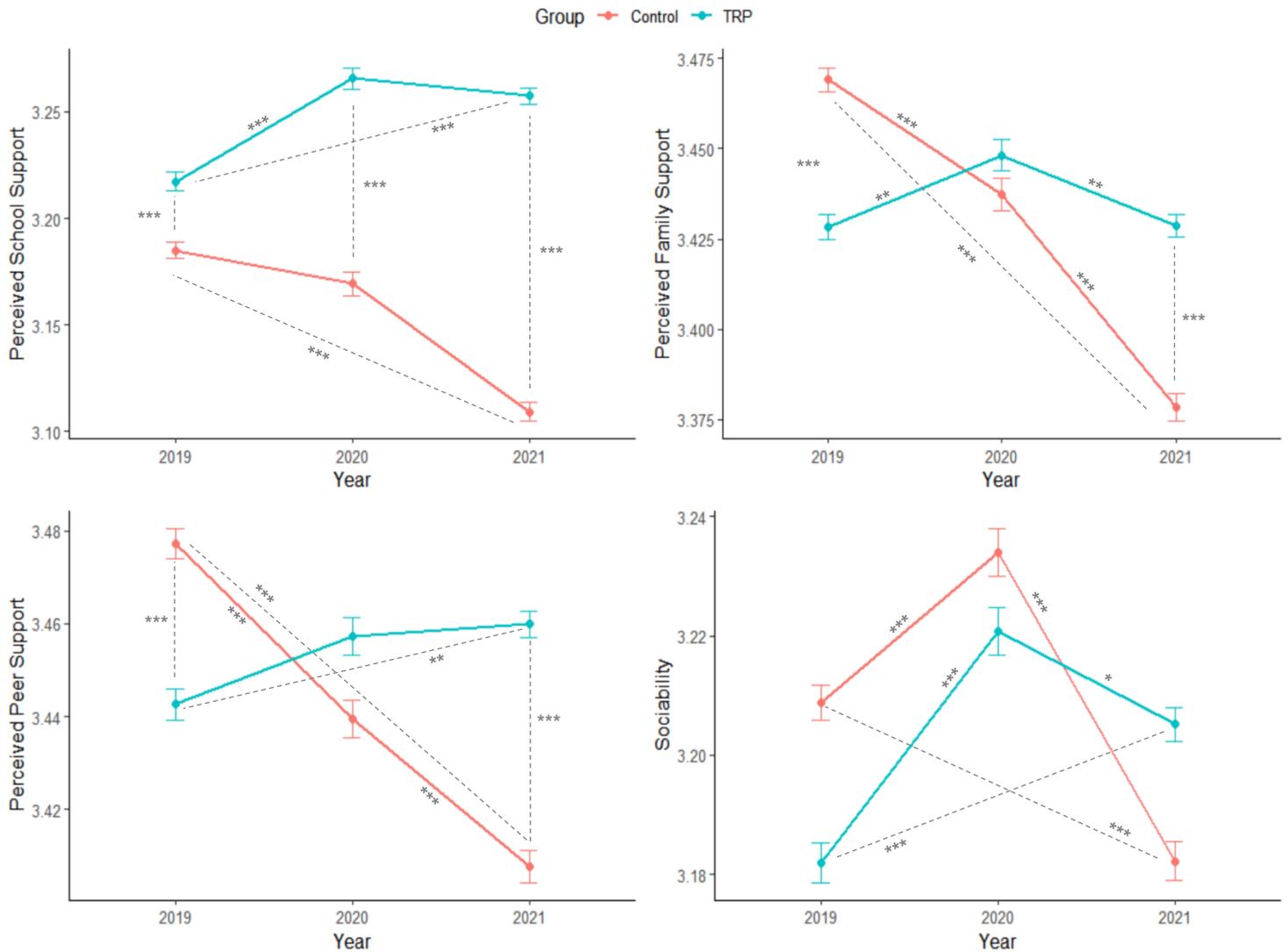
Figure 2. Australian student ratings of wellbeing across 2019, 2020 and 2021 for measures of perceived school support (top left), family support (top right), peer support (bottom left) and personal sociability (bottom right). Ratings of students from the TRP program are displayed in blue, and control (non-TRP) students in red. Higher scores indicate higher perceived support and/or sociability. Points represent mean group scores for the respective scales, with error bars representing standard error of the mean. Asterisks (and associated dotted lines) denote statistically significant differences of [* p <.05, **p <.01, ***p <.001].
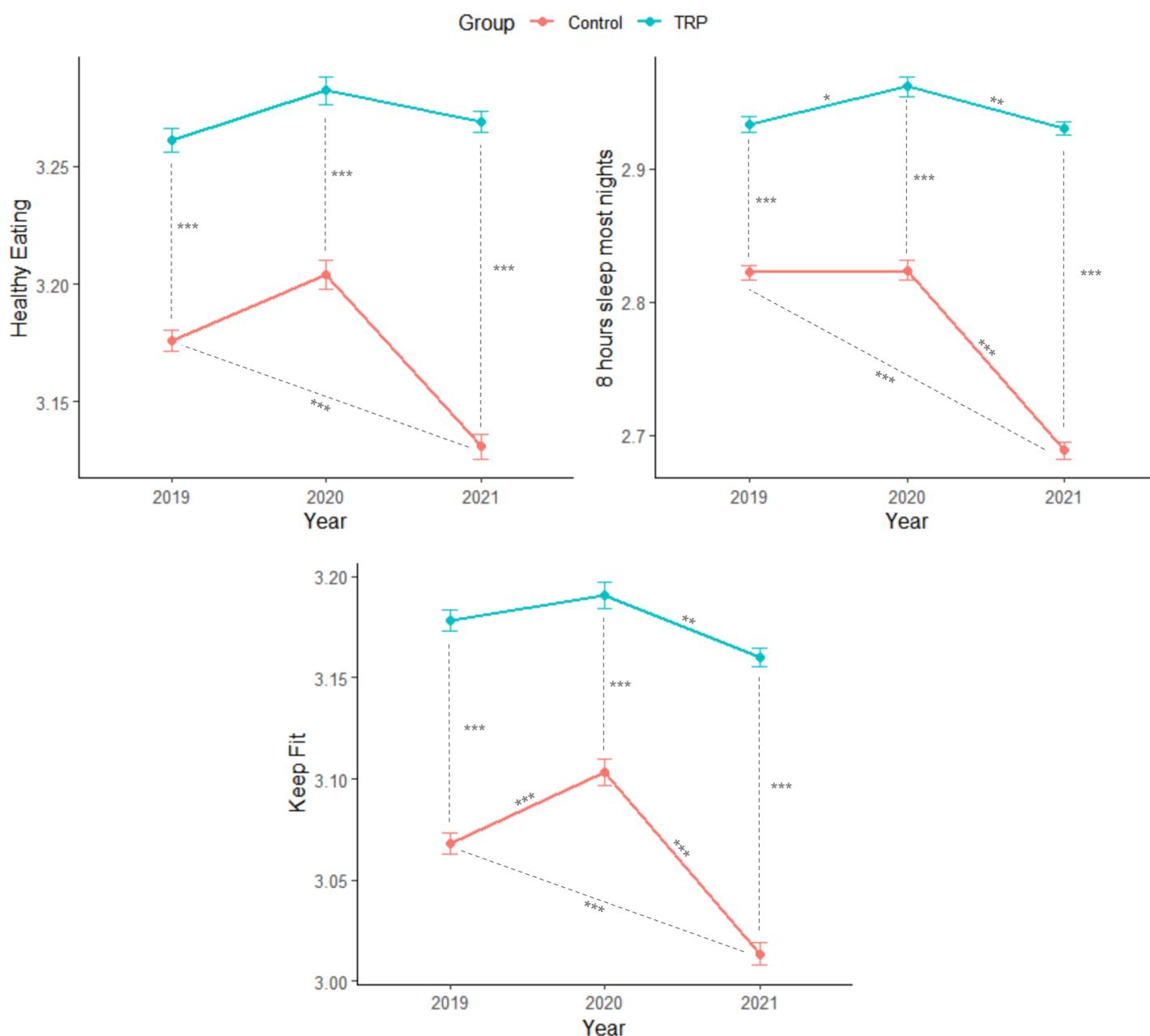
Figure 3. Australian student ratings of healthy behaviour across 2019, 2020 and 2021 for measures of healthy eating (top left), sleeping at least eight hours per night (top right), and keeping fit (bottom). Ratings of students from the TRP program are displayed in blue, and control (non-TRP) students in red. Higher scores indicate a greater frequency of that behaviour. Points represent mean group scores for the respective scales, with error bars representing standard error of the mean. Asterisks (and associated dotted lines) denote statistically significant differences of [* $p < .05$, ** $p < .01$, *** $p < .001$].
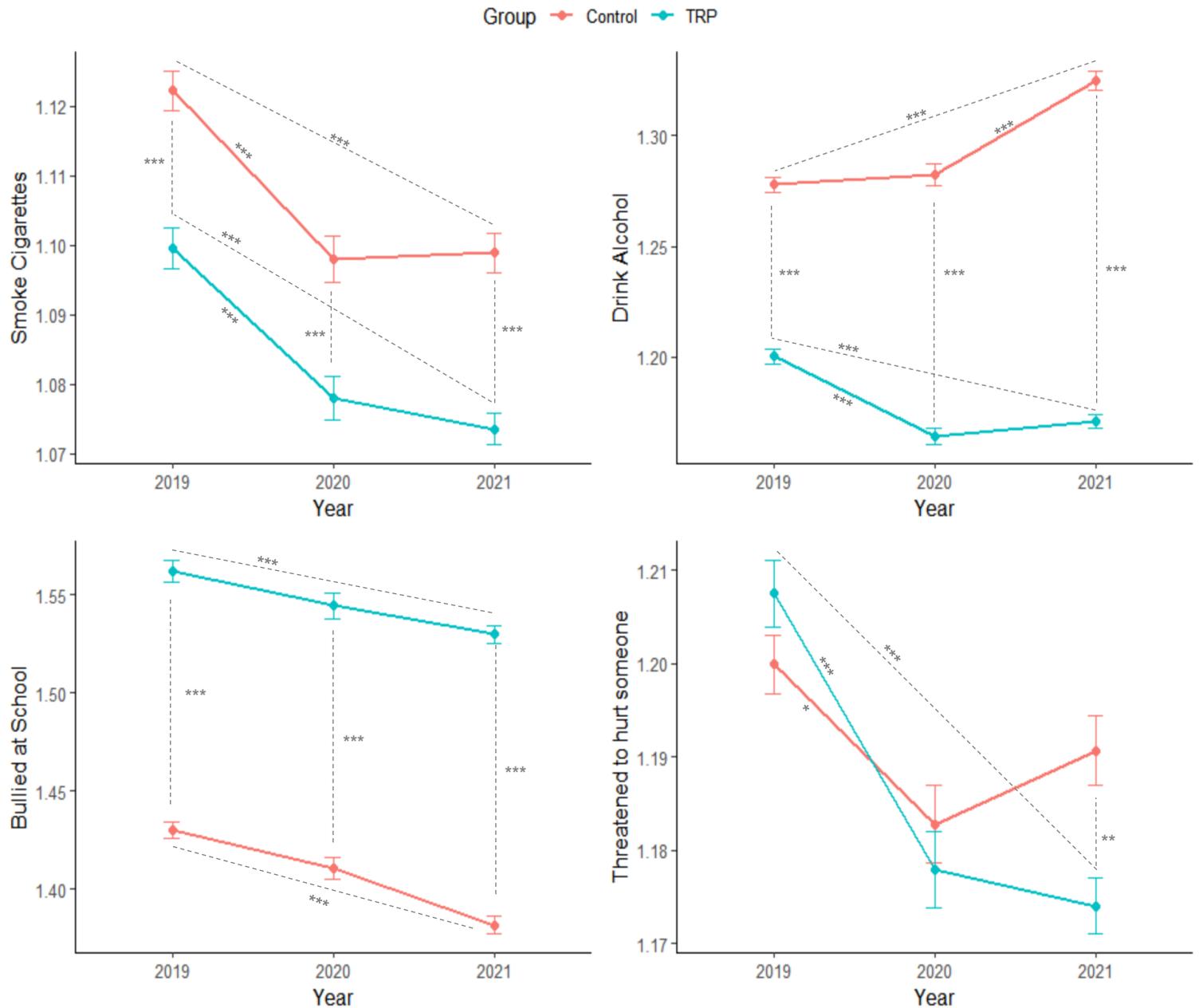
Figure 4. Australian student ratings of negative behaviours across 2019, 2020 and 2021 for measures of smoking cigarettes (top left), drinking alcohol (top right), being bullied at school (bottom left), and threatening to hurt someone (bottom right). Higher scores indicate a greater frequency of that behaviour. Ratings of students from the TRP program are displayed in blue, and control (non-TRP) students in red. Points represent mean group scores for the respective scales, with error bars representing standard error of the mean. Asterisks (and associated dotted lines) denote statistically significant differences of [* p <.05, ** p <.01, *** p <.001].

4. Results summary

The combined results of this preliminary analysis show a consistent pattern whereby the health and wellbeing of Australian students between the ages of 8 and 18 has declined across the three most recent years. It is beyond the scope of this report to speculate as to the cause of this decline, however many of the pervasive challenges in our society of recent years are well known. Importantly, this report provides evidence that the provision of The Resilience Project (TRP) – a school-based intervention program – provides significant protection to student wellbeing, social environment, and behaviour. Important to note is that ongoing provision of the program (i.e., across consecutive years) afforded maintenance of higher levels of wellbeing despite a broader trend of continued decline in Australian students.