# COVID-19-related stress responses: Have levels of COVID-19-related stress and anxiety decreased since the onset of the pandemic?

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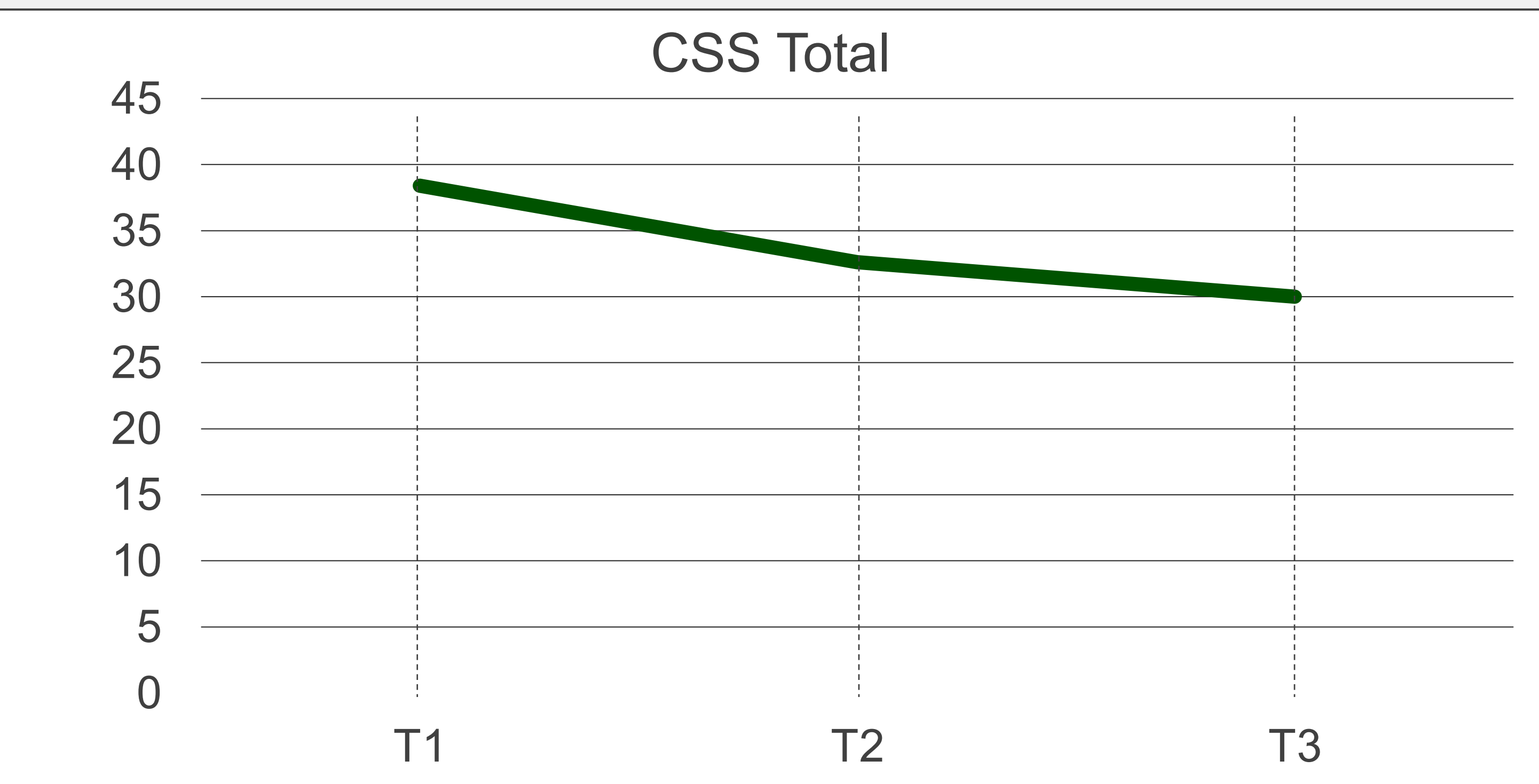
## Background

- Researchers have identified the 'COVID Stress Syndrome', comprised of 5 domains:[1]

  - Fears about the dangerousness of COVID-19 and of contamination (**DAN**)
  - Worries about socioeconomic impacts of COVID-19 (**SEC**)
  - Xenophobic concerns (**XEN**)
  - Traumatic stress symptoms (**TSS**)
  - Compulsive checking/reassurance seeking symptoms (**CHE**)

- Recent research suggests that pandemics are dynamic in nature, and that there may be fluctuating levels of COVID-19 related stress[2, 3]

- The purpose of the current analysis was to determine whether COVID-19-related stress levels have changed over the course of the pandemic

## Methods

- Participants (n=2,076) completed a longitudinal online survey at three time points during the pandemic between March and August of 2020 (T1=Mar-Apr; T2=May; T3=Jul-Aug)

  - North American Adults (**50.1% Canada**; 49.9% United States)
  - Mean age = **53.8** years (SD = 14.1)
  - **59.6%** Male

- Participants self-reported levels of COVID-19 related stress, as measured by the COVID Stress Scales (**CSS**), including **DAN, SEC, XEN, TSS, CHE**[1]

- One-way ANOVAs and post-hoc pairwise comparisons were conducted to compare CSS responses across three time points, using $p < .0027$ to determine statistical significance
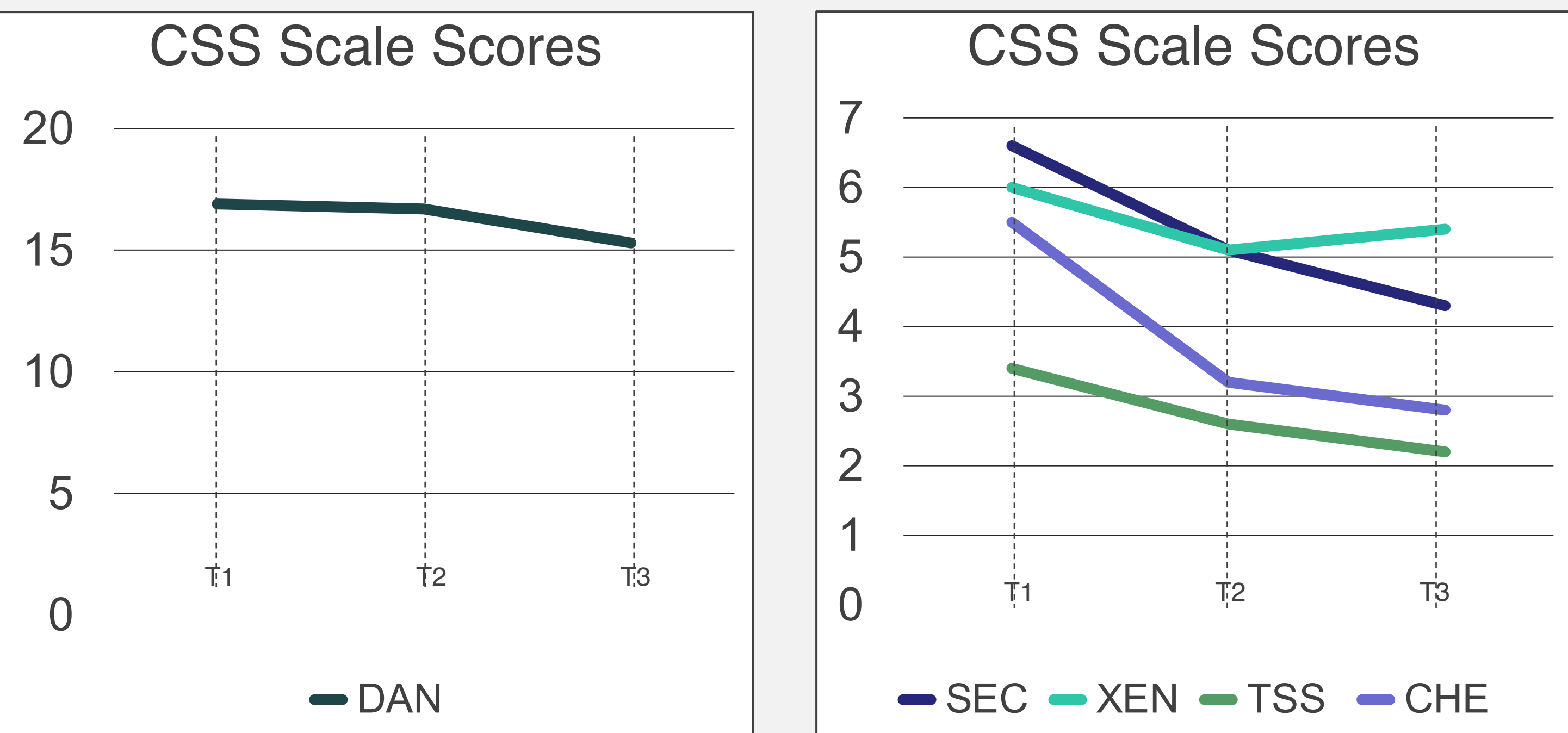
## Results

*Graph 1.* CSS Total Scores



**Note.** COVID Stress Scales (CSS) total scores range from 0 to 144; T1=Mar-Apr 2020; T2=May 2020; T3=Jul-Aug 2020

*Graphs 2 & 3.* CSS Scale Scores



**Note.** DAN total scores range from 0 to 48; SEC, XEN, TSS, and CHE scores range from 0-24; T1=Mar-Apr 2020; T2=May 2020; T3=Jul-Aug 2020.

| Mean | CSS-Total | CSS-DAN | CSS-SEC | CSS-XEN | CSS-TSS | CSS-CHE |
|---|---|---|---|---|---|---|
| T1 | 38.4 | 16.9 | 6.6 | 6.0 | 3.4 | 5.5 |
| T2 | 32.6 | 16.7 | 5.1 | 5.1 | 2.6 | 3.2 |
| T3 | 30.0 | 15.3 | 4.3 | 5.4 | 2.2 | 2.8 |

## Results

- **CSS Total** scores decreased from T1 to T2 and T3 ($p$s<.001); $d = 0.27$

- CSS subscale scores on **SEC and CHE** decreased from T1 to T2 and T3, as well as T2 to T3 ($p$s<.001, $d$=.0.32; and $p$s<.002, $d$=0.54, respectively).

- Scores on **DAN** decreased from T1 to T3 ($p$< 001), and T2 to T3 ($p$=.001; $d$=0.13)

- **XEN** scores decreased from T1 to T2 ($p$<.001; $d$=0.11)

- **TSS** scores decreased from T1 to T2 ($p$ < .001), and T1 to T3 ($p$<.001; $d$=0.22)

- *Effect size estimates were <u>small to medium</u>,* 0.11 to 0.54

## Discussion

- On average, CSS total and scale scores, except XEN, decreased from March to August of 2020

- COVID-19 related stress responses may reflect acute psychological response to that gradually decreases over time without intervention; whether this applies to the general population as well as with pre-existing anxiety- or mood-related disorders remains to be determined

- Further research is needed to determine whether COVID-19 related stress fluctuations correspond with levels of perceived threat at a given time

### References

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2. Asmundson, G. J. G., & Taylor, S. (2020). Coronaphobia revisited: A state-of-the-art on pandemic-related fear, anxiety, and stress. *Journal of Anxiety Disorders, 76*, 102326.
3. Angus Reid Institute (2020, July 15). COVID-19: Canadian concern over falling ill on the rise again. http://angusreid.org/covid-concern-rising/print