Self-reported levels of Depression, Anxiety, and Stress in medical students during the first 6 months of medical school

A case study at the Medical College of Wisconsin's Regional Campuses prior to and during the COVID-19 pandemic

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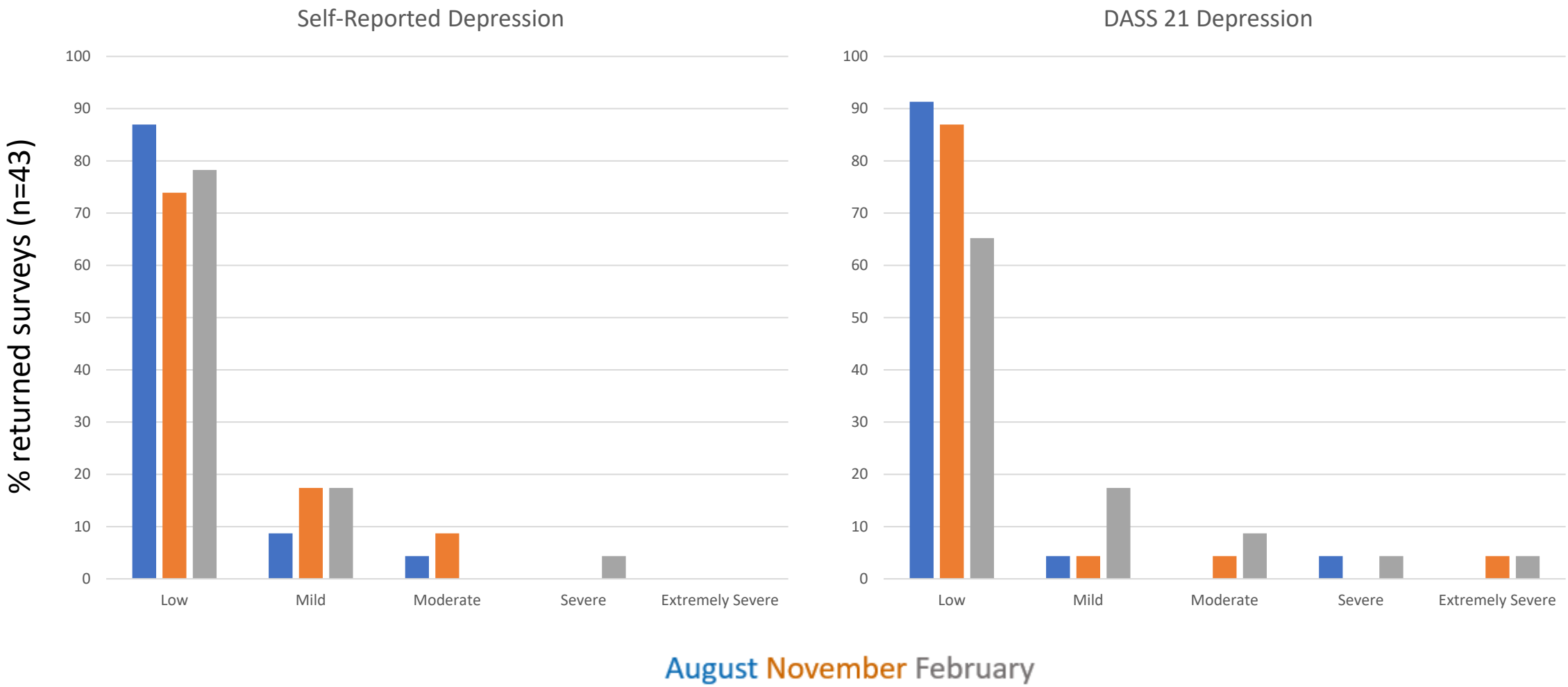
Background

- Survey all Regional Campus Medical Students - 2019-2020 pre-COVID
  - Survey distributed in August, November and February – avoided summative exam periods
  - 45 total, 90% survey return rate at both campuses
  - Survey collection in 2020-2021 influenced by COVID pandemic - return rates only comparable for August and February data sets
    - As such bulk of discussion will only focus on 2019-2020 data except for slides comparing COVID data set to that collected prior to COVID pandemic
- Survey included
  - Self report level of Depression, Anxiety or Stress
  - DASS 21 survey (21 questions) to assess the same
  - Unique non-identifiable linker to view longitudinal progression
- Survey is not clinically diagnostic for Depression, Anxiety or Stress
- Purpose – better understand regional campus student adjustment to medical school

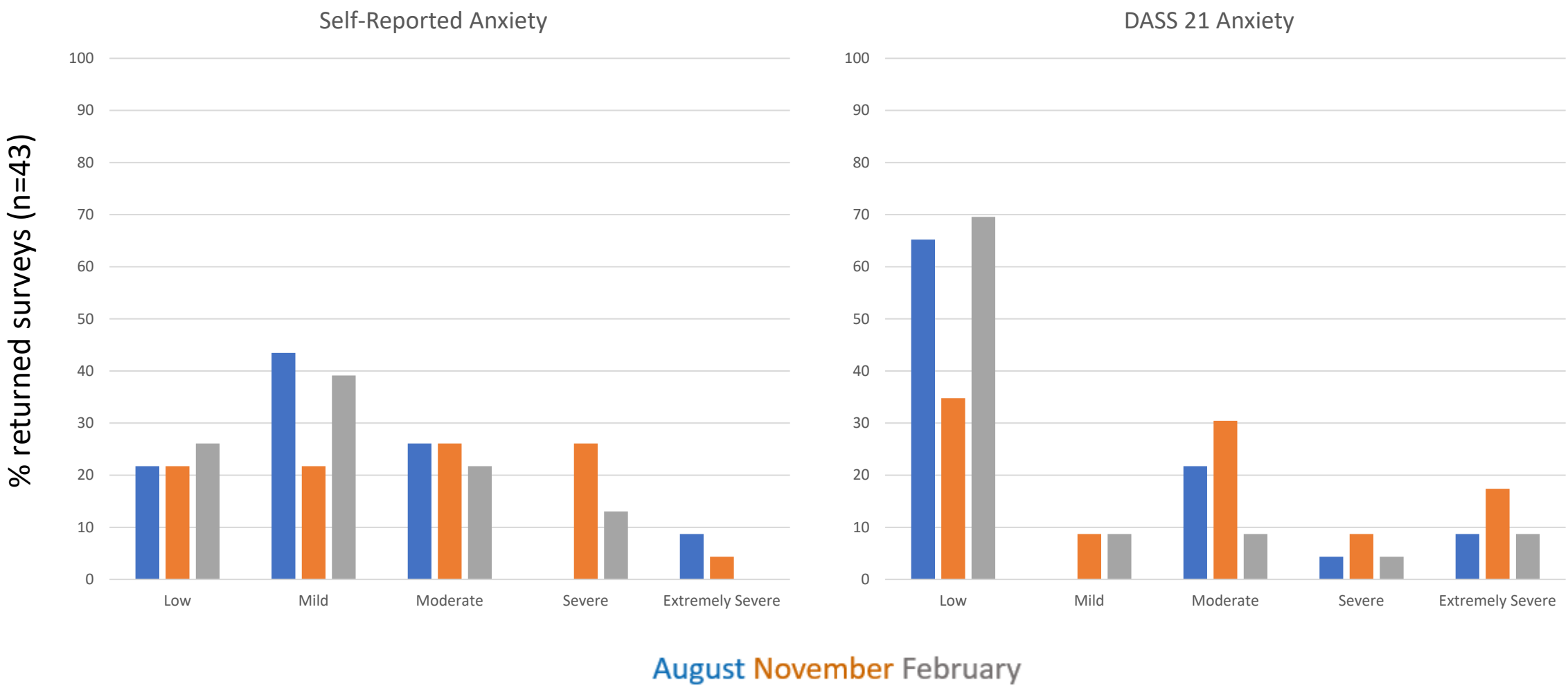
Depression - Population

Comparing Self Assessed to DASS 21



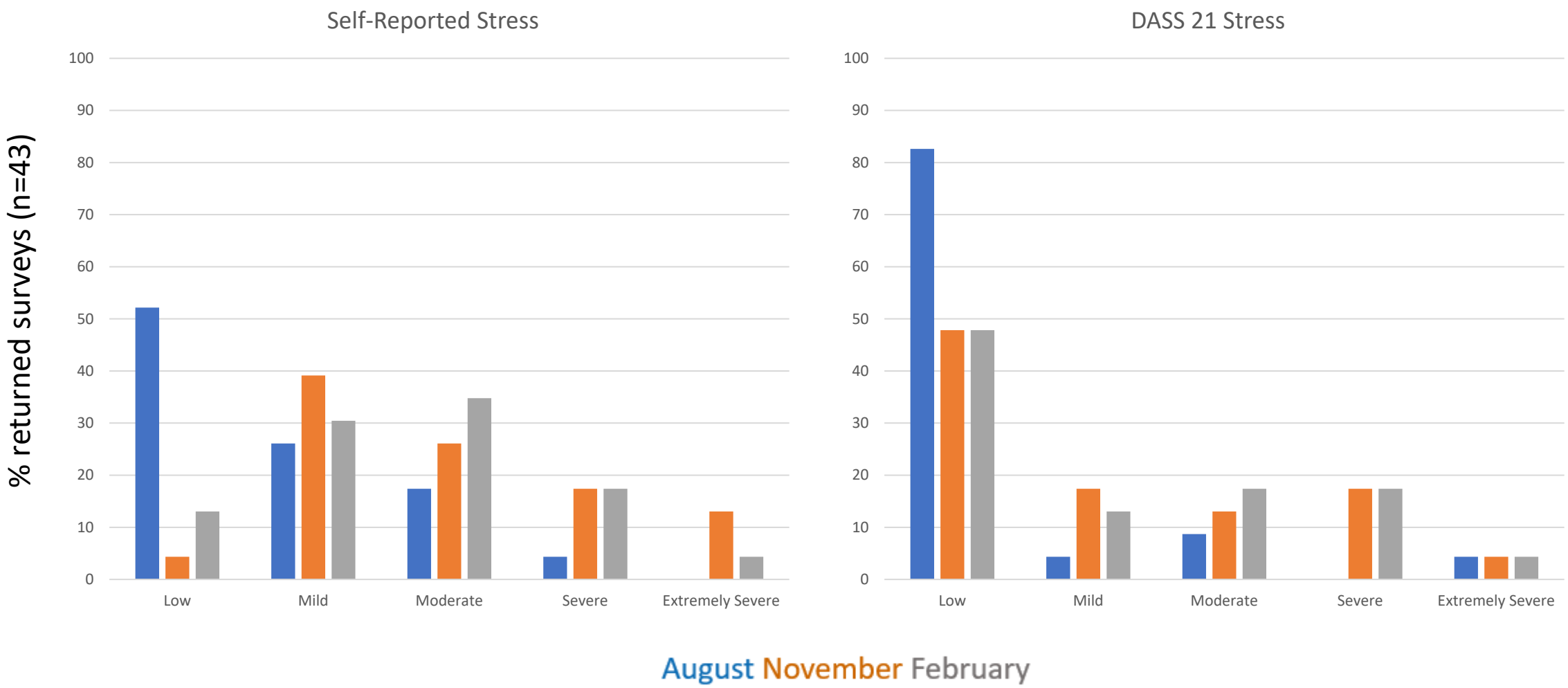
Anxiety - Population

Comparing Self Assessed to DASS 21



Stress - Population

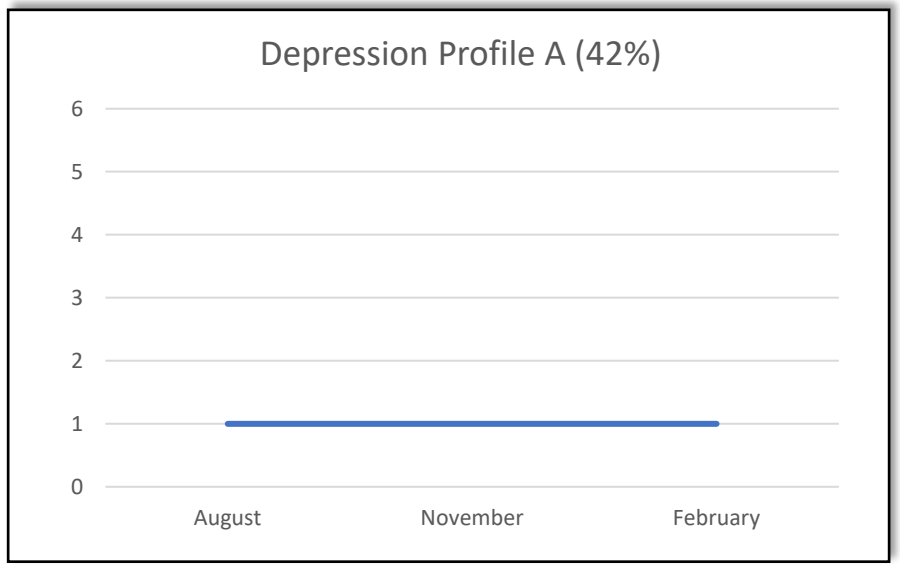
Comparing Self Assessed to DASS 21

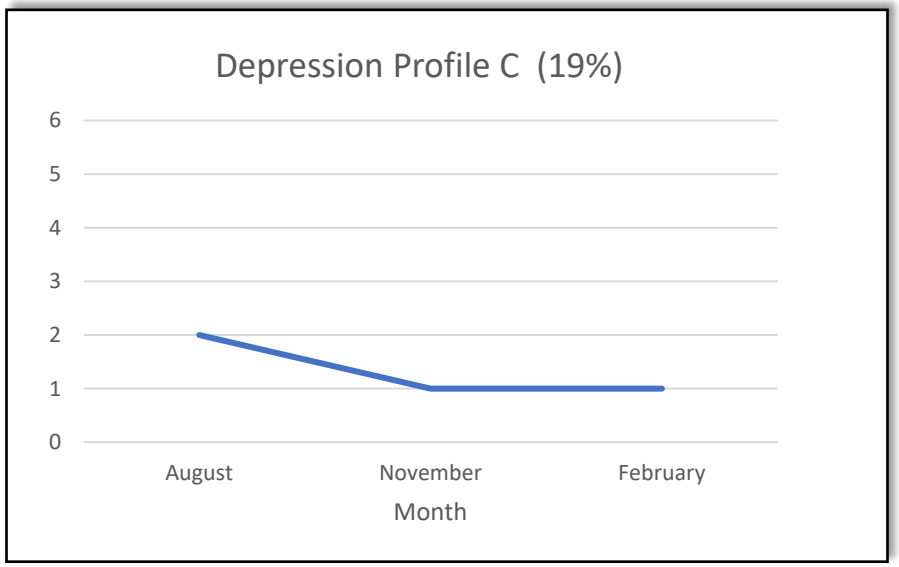


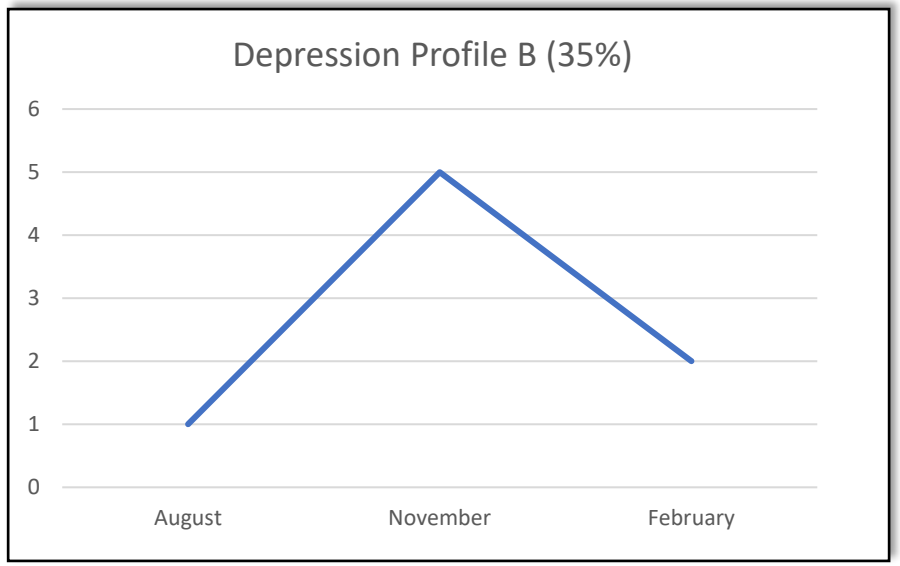
Conclusion #1 (population data)

- Over the first 6 months of medical school at the regional campuses:
  - Depression levels across the student population appear low over the first 6 month of medical school (in general)
  - Anxiety and Stress level range from low to extremely severe with levels peaking in November in the mild to moderate range
  - Student self-reported higher levels of depression, anxiety and stress than those levels measured using the DASS 21 instrument

Profile Analysis - Depression



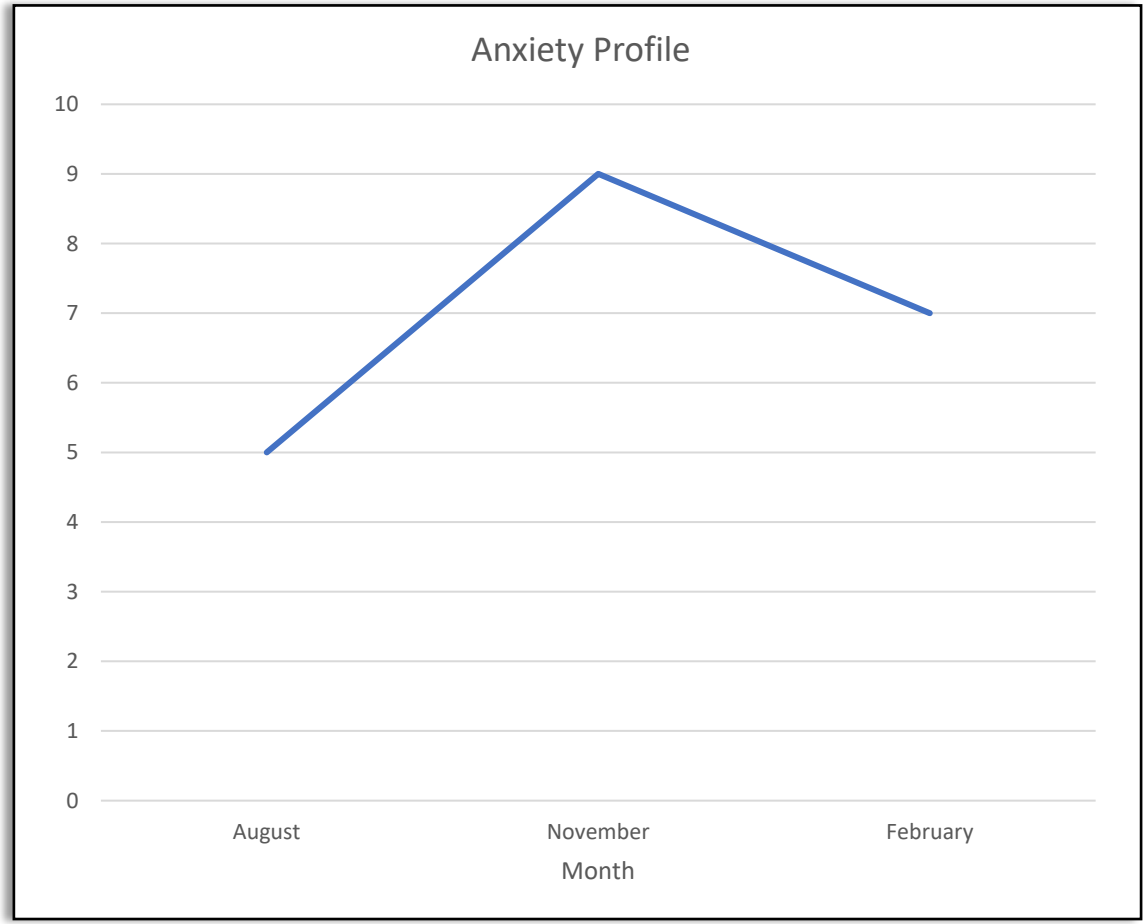




All scores in the normal/low range

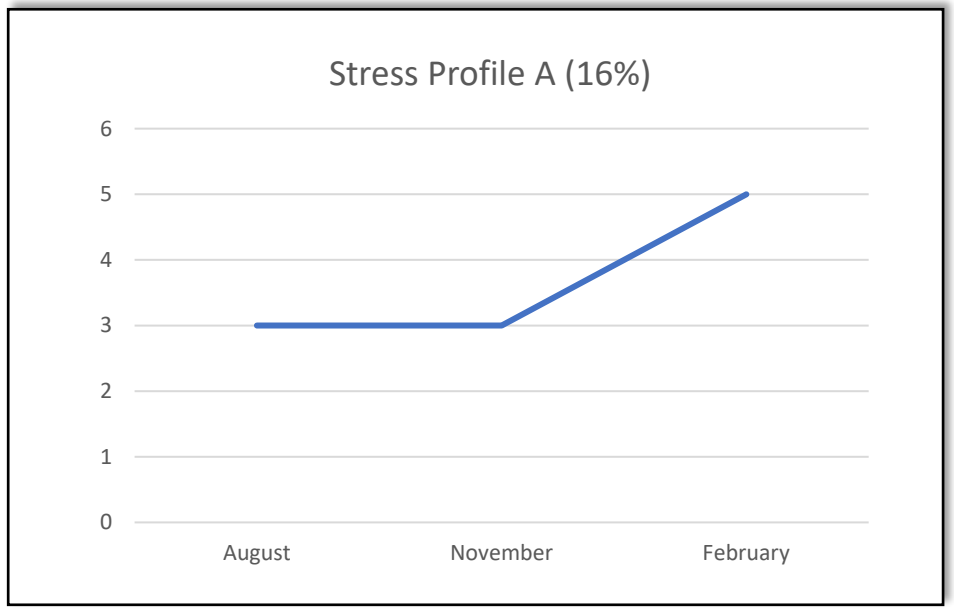
4% data did not fit any profile

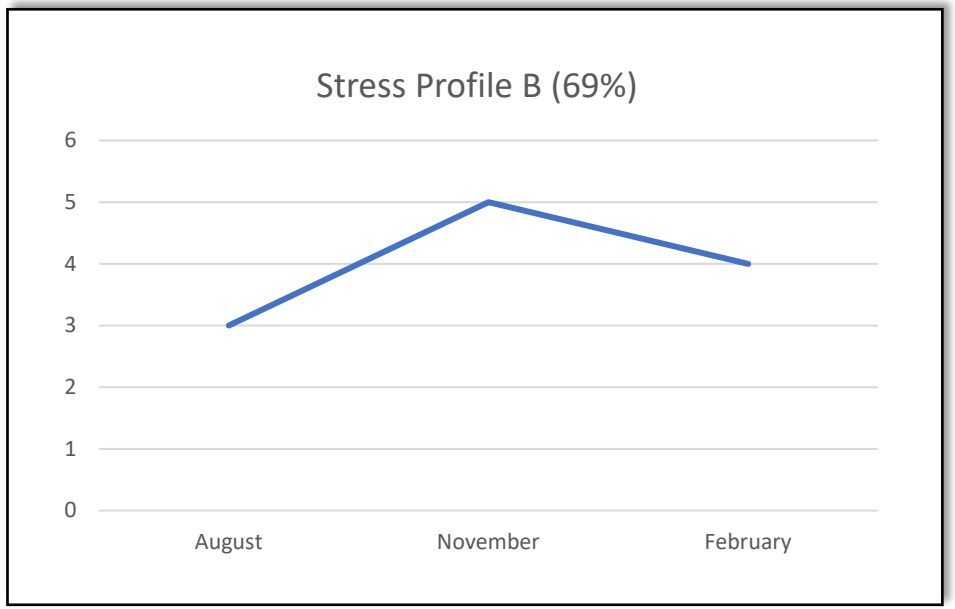
Profile Analysis - Anxiety



- Single profile – 73%
  - 27% did not fit any profile
- Scores ranged across mild/moderate to severe with peak always in November

Profile Analysis - Stress



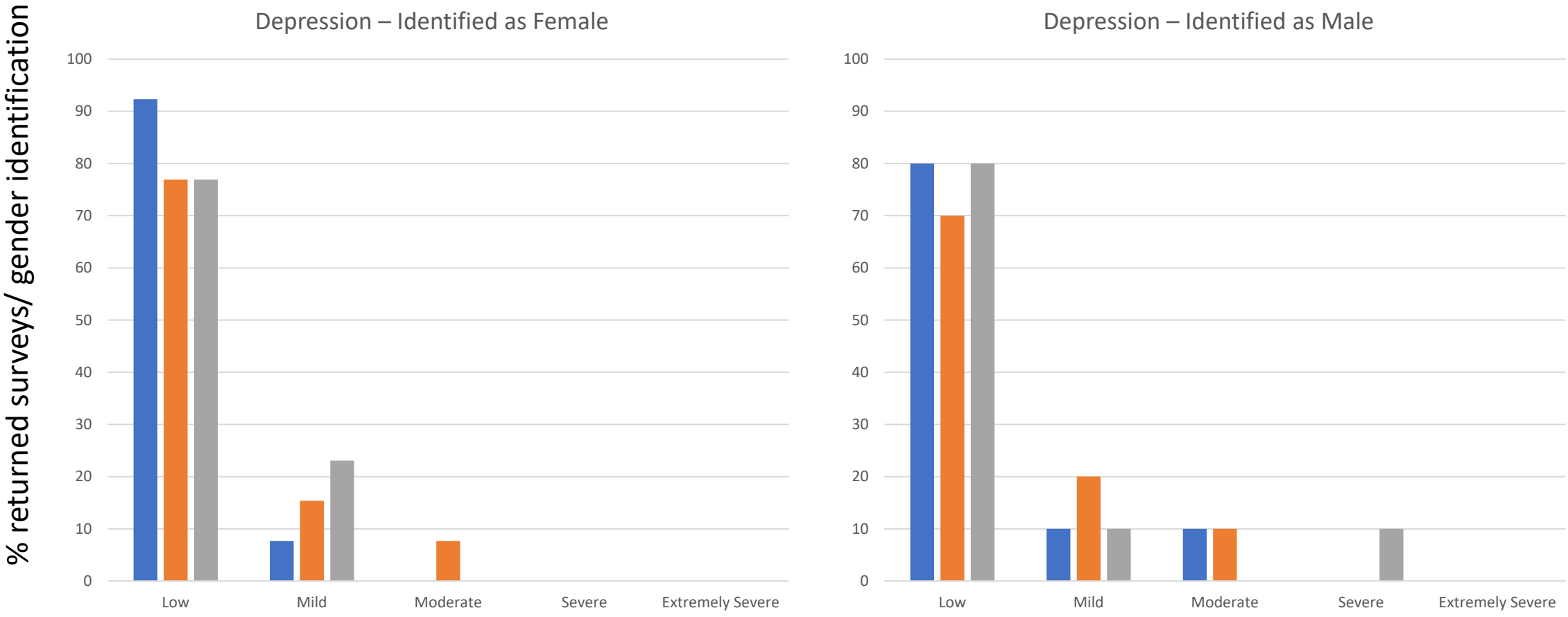


- Scores ranged across mild/moderate to severe
- 15% of data did not fit either profile

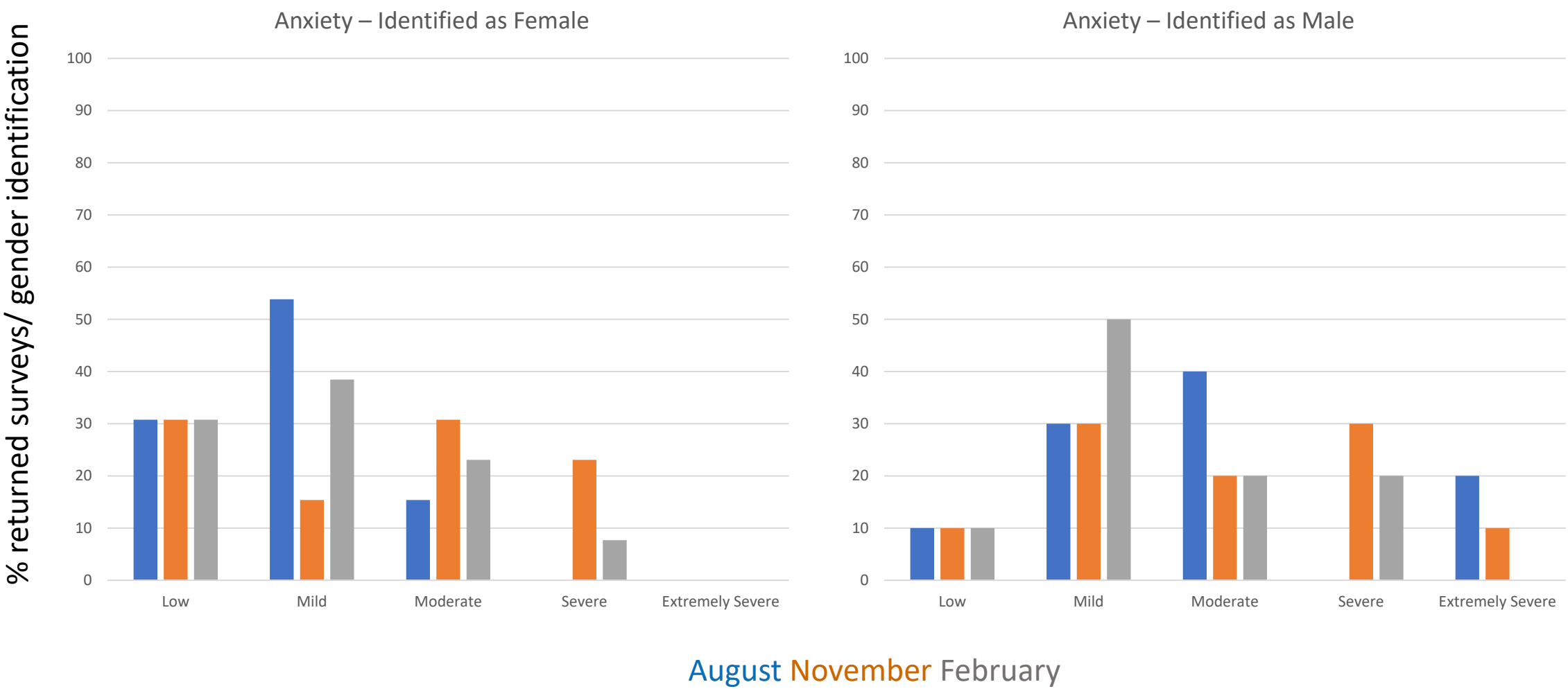
Profile Analysis Conclusions

- Not everyone experiences depression, anxiety and stress the same
- Profiles suggest shared experiences with levels of anxiety and stress peaking in November compared to August or February
  - Causes?
    - Seasonal
    - Timing of Survey
    - Normalization of the medical school experience
    - Others

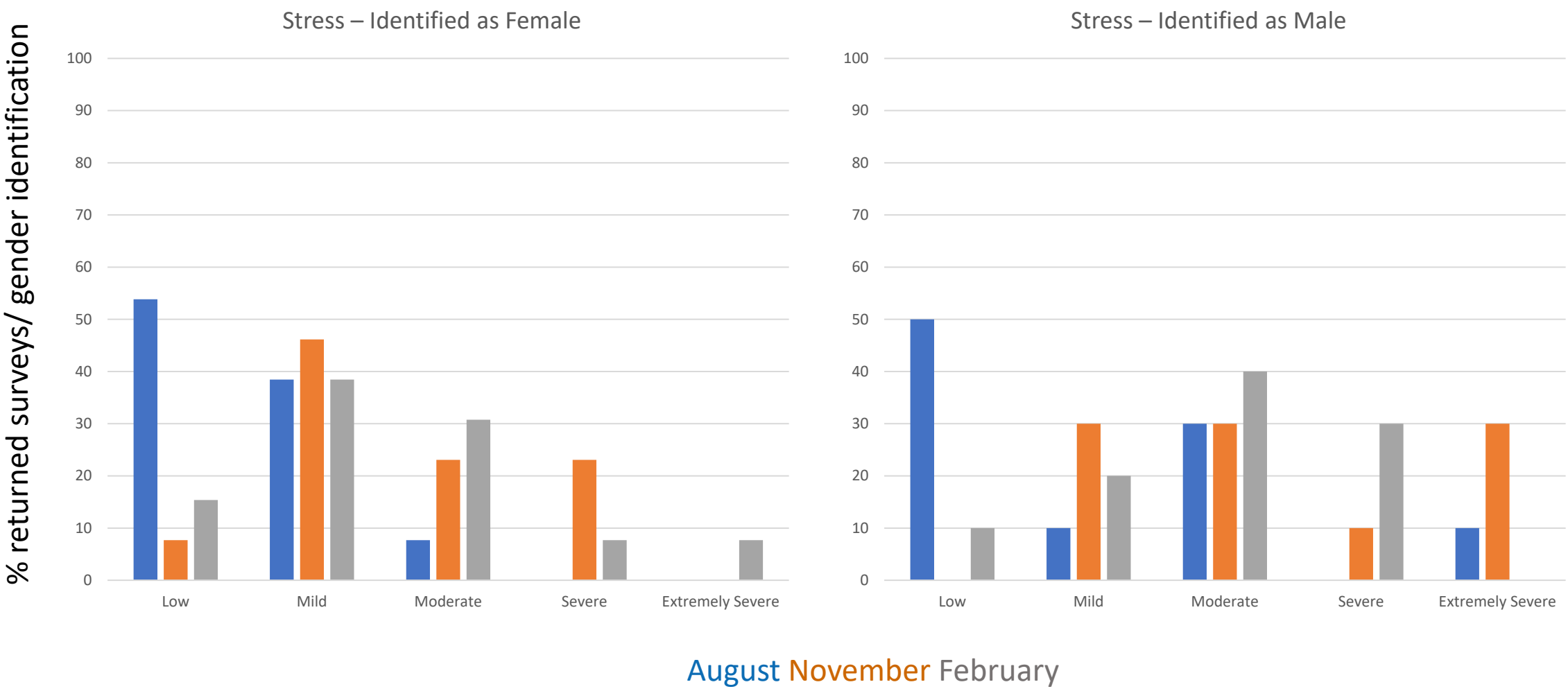
Gender Differences? (Depression)



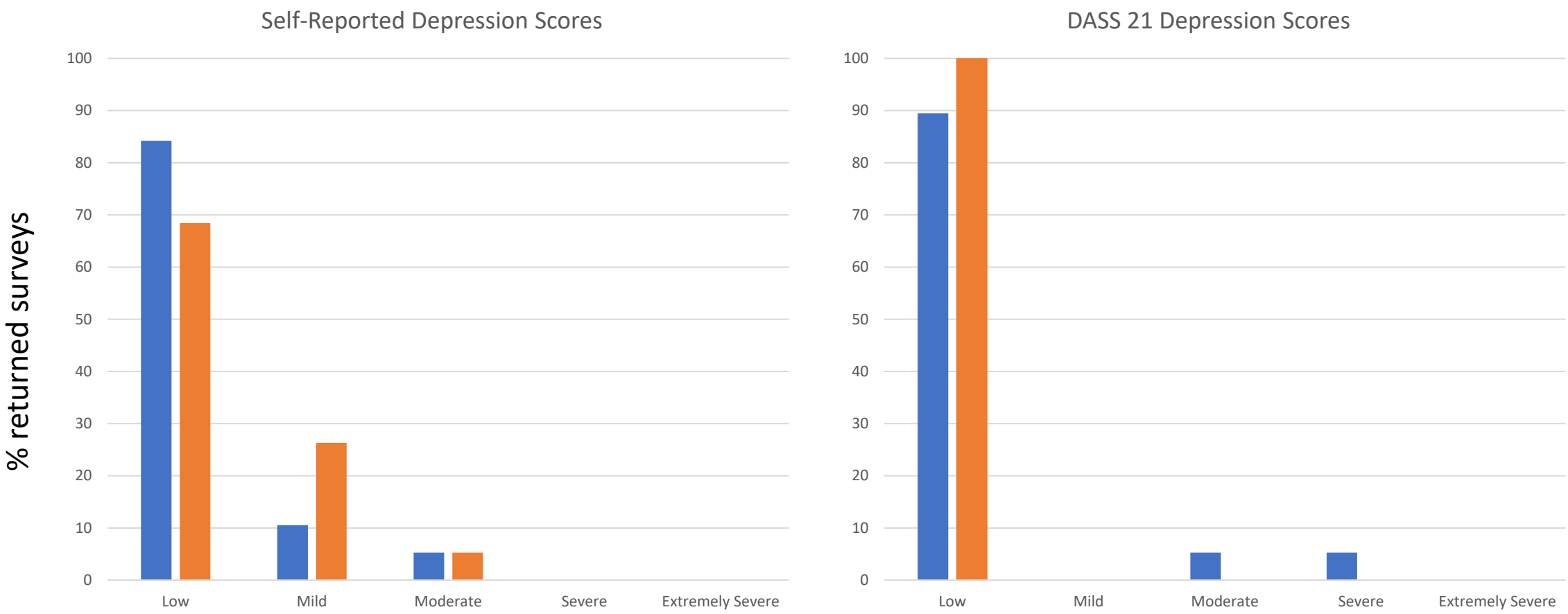
Gender Differences? (Anxiety)



Gender Differences? (Stress)

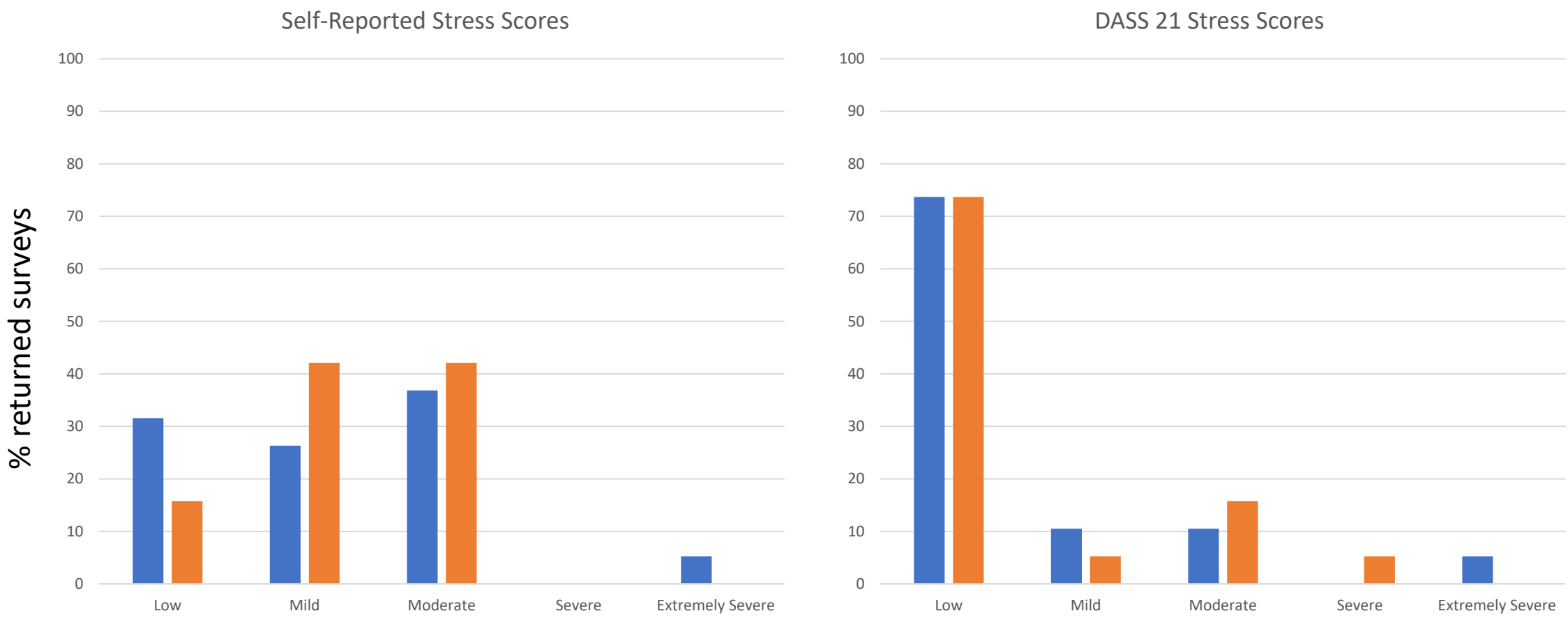


Depression Pre-COVID and COVID - August Data

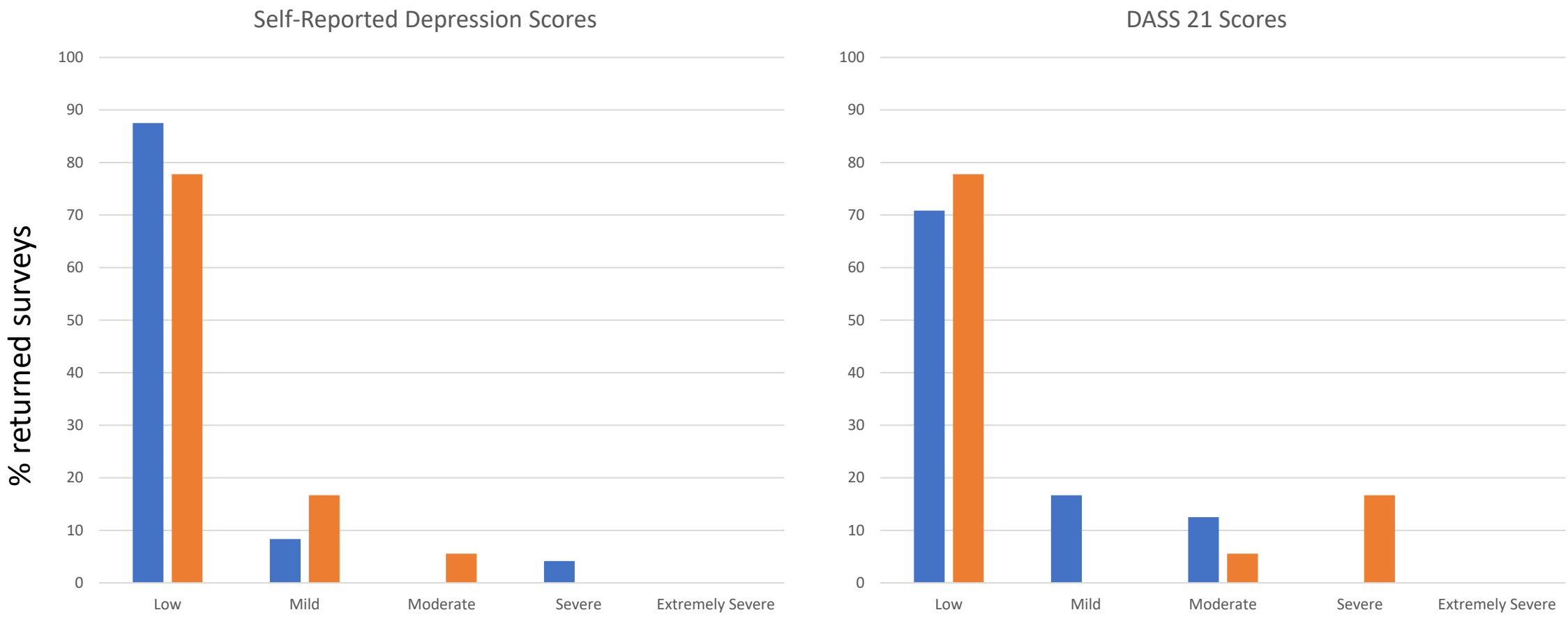


Anxiety Pre-COVID and COVID - August Data

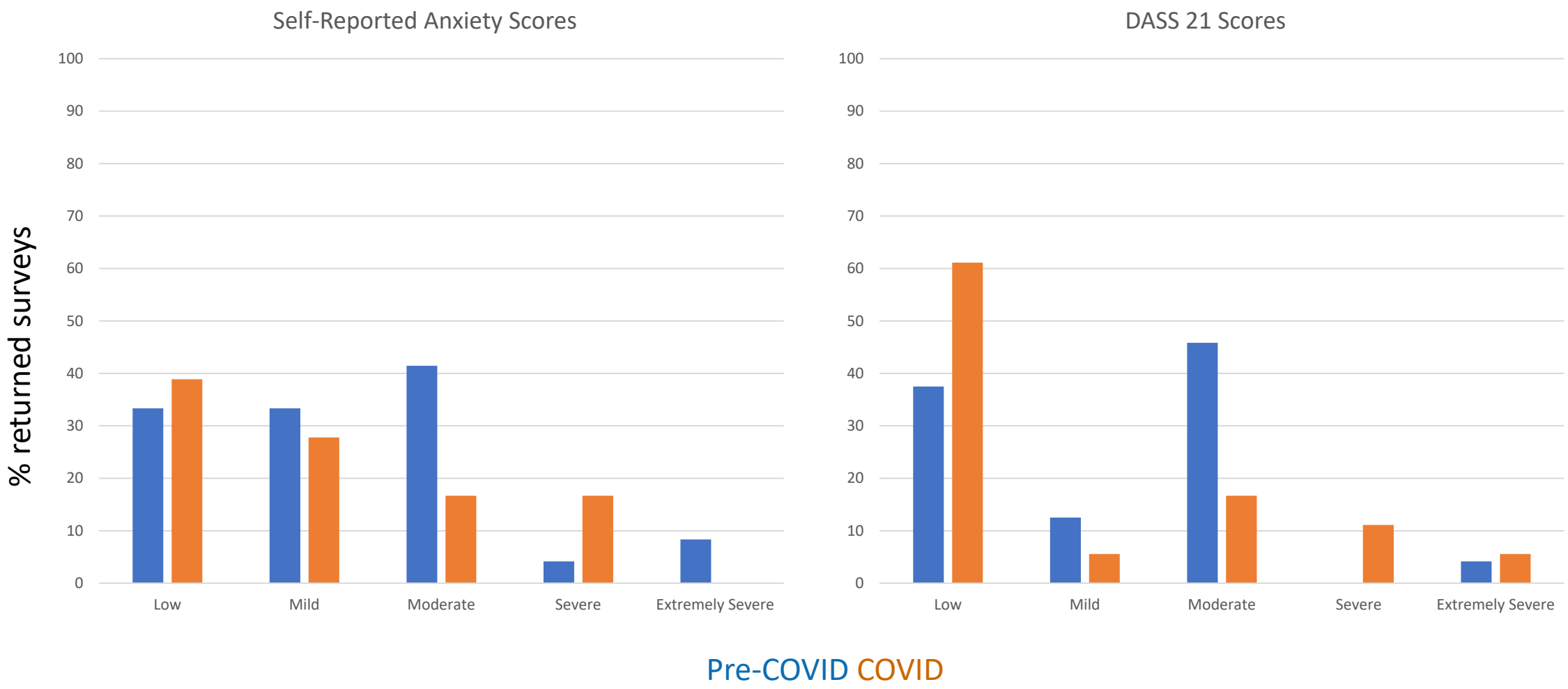
Stress Pre-COVID and COVID - August Data



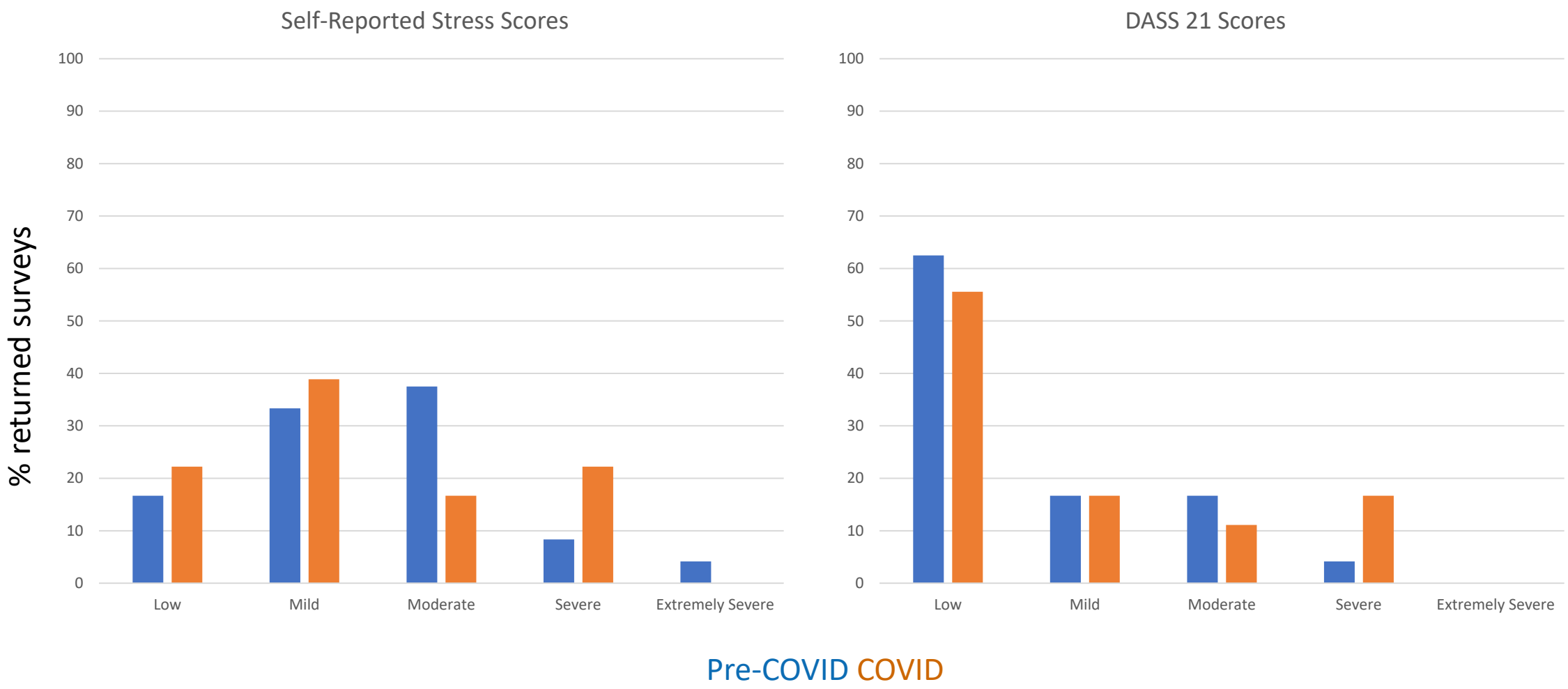
Depression Pre-COVID and COVID - February Data



Anxiety Pre-COVID and COVID - February Data



Anxiety Pre-COVID and COVID - February Data



Final Conclusions – Gender/COVID

- Male identifying students may have shown slighter higher levels of depression, anxiety and stress compared to female identifying students

- Levels of depression, anxiety and stress did not appear different in comparable pre-COVID and COVID datasets for the months of August and February.

Thank you

Questions, comments, advice for further exploration?

Please email me – I would love to communicate with you

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