DSS Trajectories Paper Aims

* ID trajectory of association between digital stress and well-being/internalizing symptoms
  1. And relationship with dss subscales
* Baseline mental health vulnerabilities at time 1 predict increases in DSS at time 2
  1. Differences between females
  2. Differences between older vs younger

Models to run in R as of 2/12/2025

dss ~ wave \* promis\_anxiety\_ranking\_t1 + sex + age + (1/participant\_id)

dss ~ anx ranking baseline \* wave + covariates + (1/subject\_id)

dss ~ anx ranking baseline + wave + covariates + (1/subject\_id)

dss ~ anx ranking baseline \* wave + covariates + (1/subject\_id) (edited)

dss ~ anx ranking baseline + wave + covariates + (1/subject\_id)

1. Did DSS increase over the pandemic?  Seems like yes
2. Did DSS increase more for girls than for boys?  Seems like no
3. Did DSS increase more for older grades? Seems like no
4. Did DSS increase more for those in clinical ranges of anxiety and depression? Seems like no

[11:48](https://interactlabco.slack.com/archives/D042NPUP7T3/p1732736888802839)

Lucía Magis-Weinberg

Because we have a main effect of anxiety, but the interaction is not significant

[11:48](https://interactlabco.slack.com/archives/D042NPUP7T3/p1732736923360249)

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So, adolescents who had higher levels of anxiety at baseline, reported higher levels of DSS overall, but not a particular increase in DSS

slopes are the same (same rate of DSS increase for clinical vs non clinical — no interaction), intercepts are different

1. ~~First calculate t-scores~~
2. ~~Reassign t1 and t2, to clinical and non clinical~~
3. ~~create a column with promis\_anxiety\_ranking\_t1 and promis\_anxiety\_ranking\_t2~~
4. ~~Artificially duplicate the values for both rows per participant -- to make this variable a~~**~~time-invariant~~**~~covariate, this is a trick, because otherwise the models would NOT run (you would need to run cross lagged panels)~~
5. Build the models using mixed effects and accounting for random intercept by participant (1/participant\_id)
   1. dss ~ wave \* promis\_anxiety\_ranking\_t1 + sex + age + (1/participant\_id)

Results

* Adolescent girls endorsed higher rates of overall digital stress and anxiety than males
* adolescent girls endorsed higher rates of approval anxiety, FOMO, and online vigilance
* Adolescents who fell in the severe anxiety category reported increased digital stress compared to adolescents in the normal, mild, and moderate categories
  1. Same for this with depression
* Older grades reported higher rates of depression and anxiety symptoms
  1. Higher digital stress driven by anxiety & FOMO
* Girls and older adolescents = more digital stress, related to symptoms of anxiety and depression
  1. Even across time?

1. PROMIS measures are t-scores, which makes them continuous data, however t-scores help determine if the person falls into the clinical threshold, making the data categorical?
   1. This would make the PROMIS predictors *funny (limited)*
   2. This could violate ordinary least squares (may not be the best linear unbiased estimate [value of error may not be 0, variance may not be constant (no homoscedasticity and instead heteroscedasticity = biased standard errors), errors may not be normally distributed because of limited number of observations ]) if there are low mean values