Project PBinJ College Newsletter

Fall 2025

thANK you!

Thank you for your participation, we could not have done this without YOU!

This study aims to research kindness and prosocial development in college students.

For more information, visit our iBAY website!

Lab website

Lab Director: Dr. Sonya Xinyue Xiao
Assistant Professor at NAU

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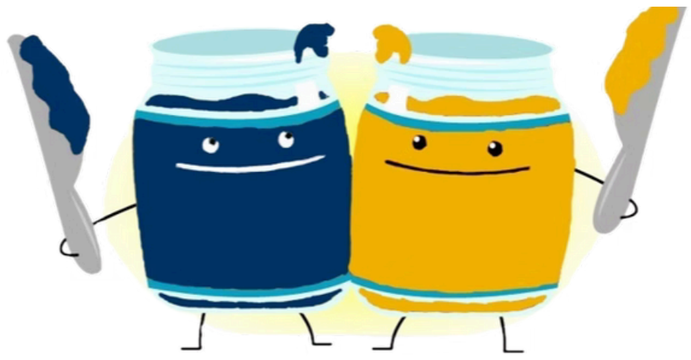
Where Did You Go?

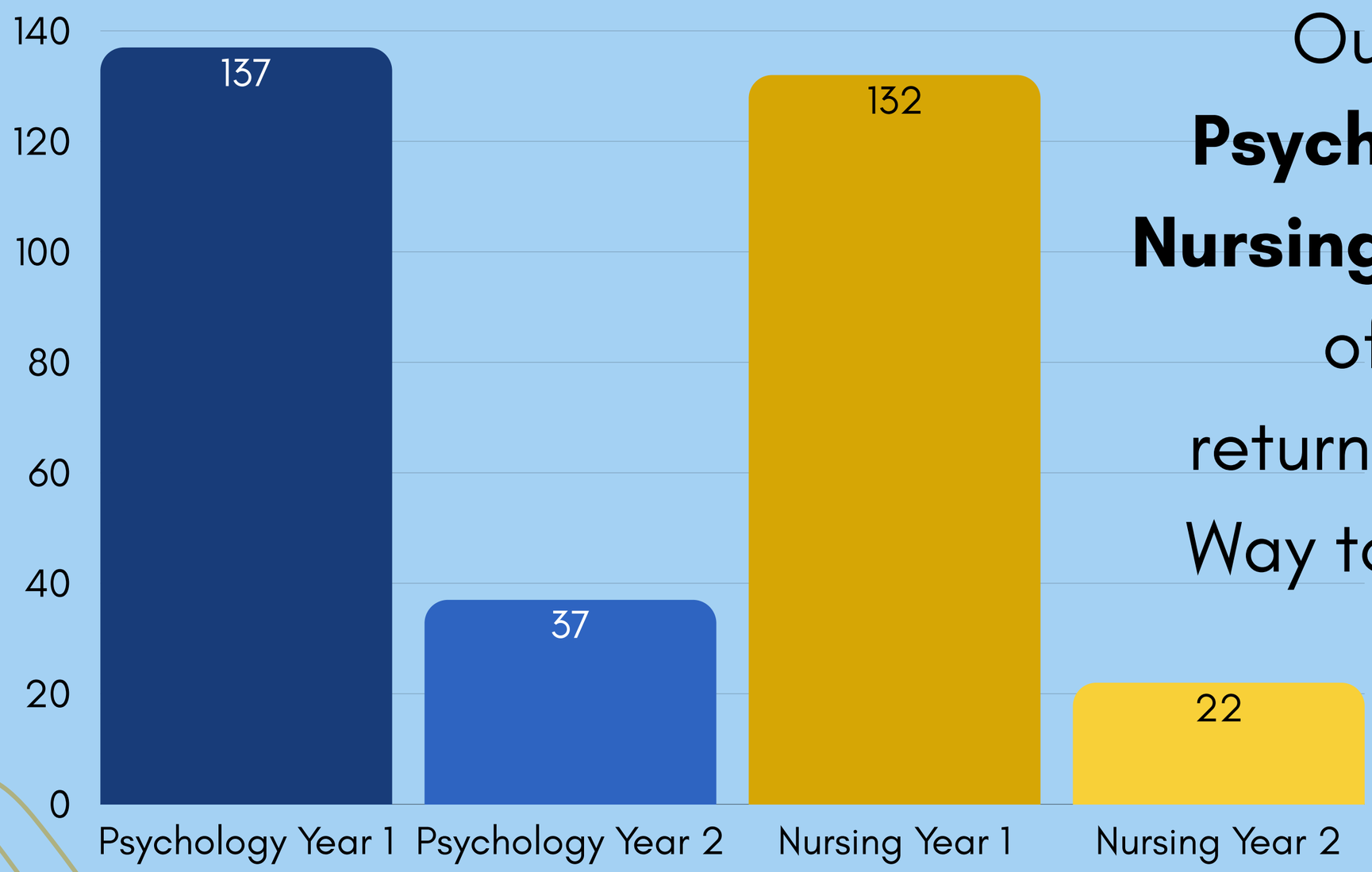
In the Fall semester we had **523** participants!

And in the Spring semester we had **112** participants return for Wave 2!

All jokes aside, we're grateful for your participation. Thank you for being apart of this project!



Wave 2's Top 2 Majors

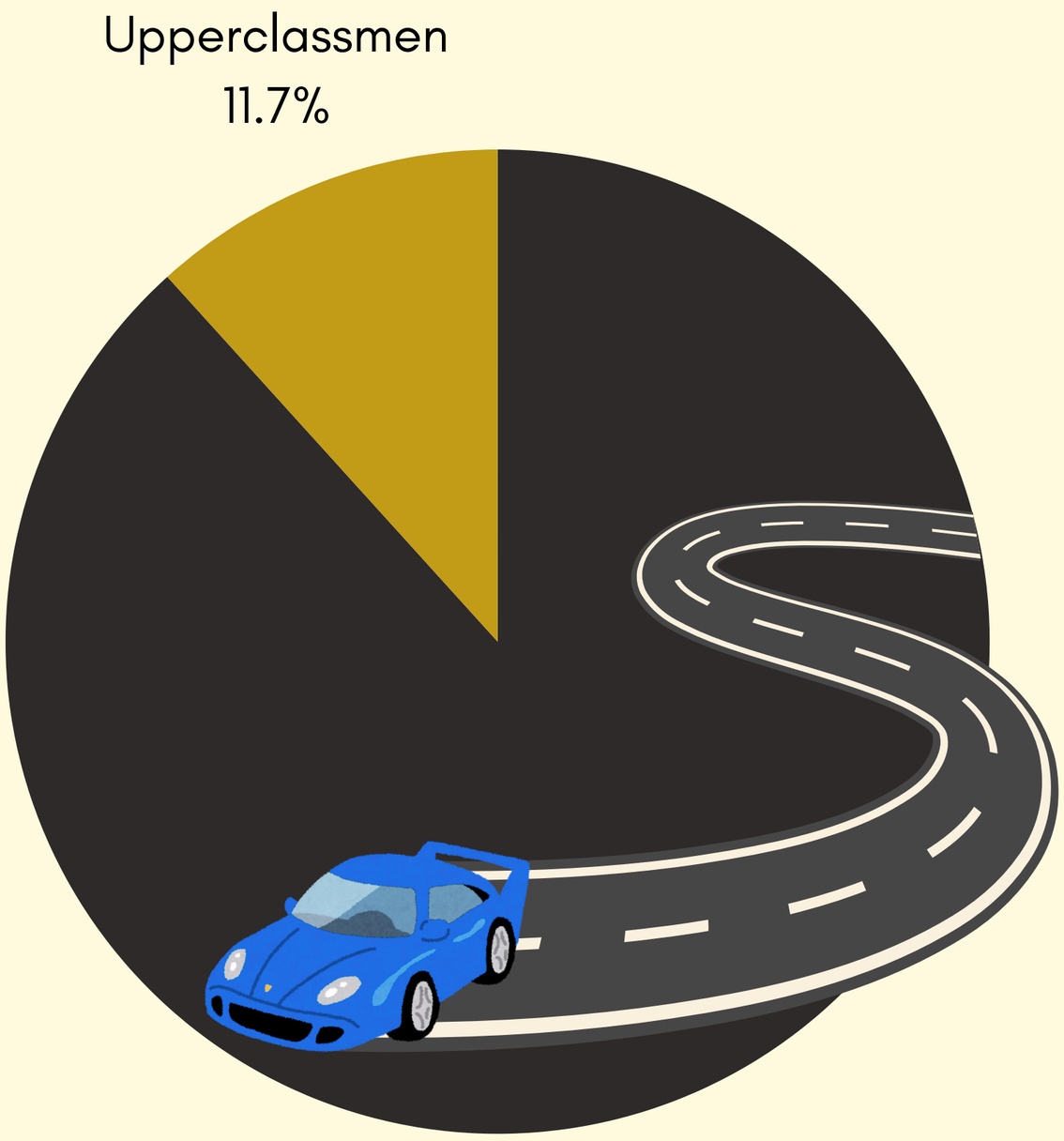


Out of the 137 **Psychology** and 132 **Nursing Majors,** a total of **59** of you returned for Wave 2. Way to represent!

Welcome back!

You're still in the lead! **88%** of you are Freshmen and Sophomores, just like Wave 1.

Round 2 and you're already crushing it. It's great to have you back!



What is Prosocial Behavior?

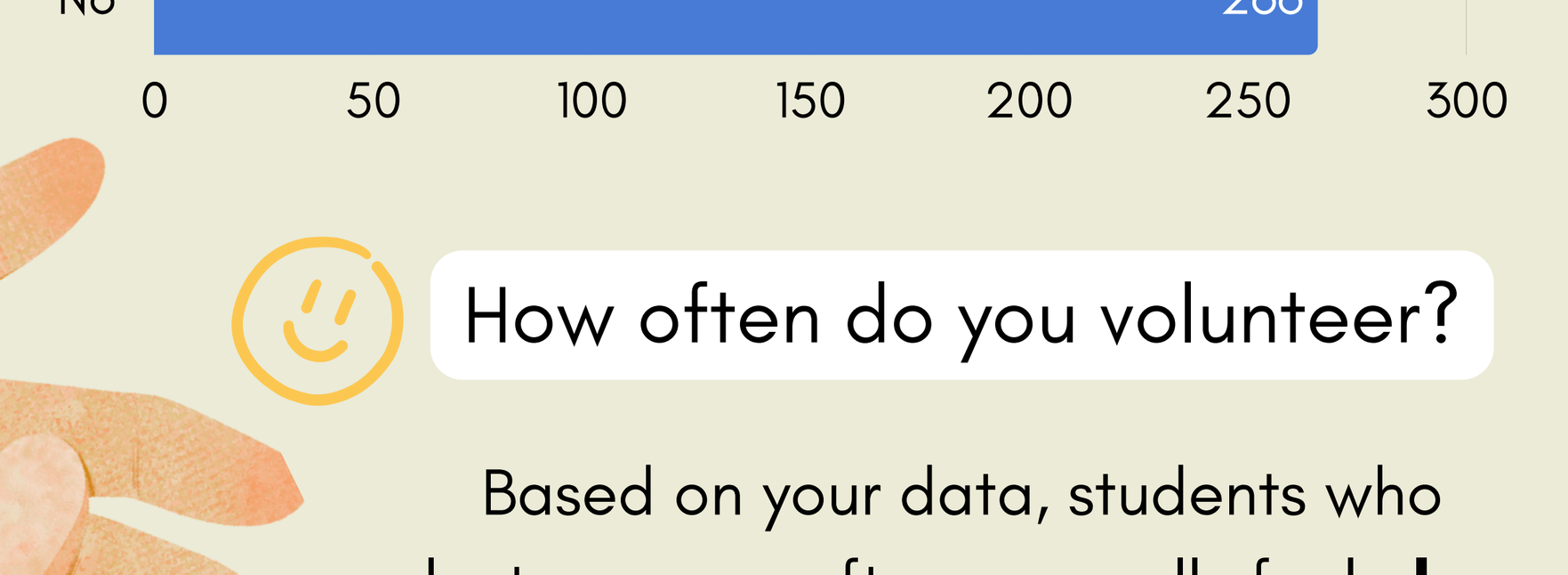
Prosocial behavior is a voluntary act of kindness, like sharing, comforting, and helping.

KINDNESS IS CONTAGIOUS! For more information on prosocial behavior, check out **this video!**

How Prosocial Are You?

Some measurable ways we can observe prosocial behavior at NAU is through those who take part in prosocial activities like **volunteering** and **voting!**

Did you vote in the 2024 presidential election?



How often do you volunteer?

Based on your data, students who volunteer more often generally feel **closer** to the community at NAU. They also feel **more capable of meeting their goals!**

Not meeting your goals? Sleep may help!

See Page 14 for more

Volunteer Shout-Out

Flagstaff Family Food Center is dedicated to serving our community, providing hunger relief to many families and those in need (including you or someone you know!). Want to be more involved in making a difference? Check out the QR code for volunteering opportunities and more!

Small acts can make a BIG difference. Be the change in the world you want to see!

Let's Talk Politics

How stressed were you after the most recent presidential election?

Using your data, we were able to evaluate how your academic, social, and financial stress is related to the 2024 election. We found that students who participated after the election were **more stressed** overall, especially those from **marginalized backgrounds.**

Presenting the poster at the NAU Spring 2025 Undergraduate Symposium!

Political Stress: Exploring the Shifts in College Psychological Distress Pre- and Post- the 2024 Election

Alexis Niemoller, Bryanna Yale, Mariah Gonzales, Audrey Burnside, Lydia D'Ambrosio, Sonya Xinyue Xiao, Ph. D.
iBAY Lab, Northern Arizona University, Psychological Sciences Department

Background & Aims

- There are notable changes in college students' psychological distress (e.g., anxiety, depression, and college stress) pre and post the 2016 presidential election (Brown et al., 2024).
- Previous research has identified demographic factors such as gender, political affiliation, and religion as predictors of clinical distress (Hagan et al., 2020). However, there are several limitations (e.g., lack of diversity and pre-election data) we aim to address.
- Emphasizing the additional data that we have collected, **our study aims to strengthen the information specifically related to the difference in collegian psychological distress (e.g., academic, social, financial stress) pre and post the 2024 presidential election using a more diverse population.**

Methods

Participants
- 523 students | NAU | Ages 18-22 | Digital Survey (SONA)
- 69.4% Women | 35.1% BIPOC | 27.1% Queer
- 29% Psychology | 25% Nursing | 8.2% Exercise Physiology
- 15.4% Republican | 41% Democrat | 20.1% Independent |12.3% No Preference | 2.7% Other | 8.4% Doesn't know

College Stress
- DV | 21 items |3 Subscales: Academic, Financial, and Social Stress
- 5-point scale (*1* = Never *5* = Very Often)

Pre/Post 2024 Election
- IV | Surveys taken before & after November 5th, 2024 Election
  - Pre-Election (*n* = 180)
  - Post-Election (*n* = 344)

Race, Gender, Sexual Orientation, & Political Identity
- Covariates

Data Analysis
- Data was analyzed in SPSS via T-Test, ANOVA, and ANCOVA tests.

Results & Discussion

	Academic Stress					Social Stress					Financial Stress				
Predictors	**df**	**Mean Square**	**F**	**sig.**	**η_p^2**	**df**	**Mean Square**	**F**	**sig.**	**η_p^2**	**df**	**Mean Square**	**F**	**sig.**	**η_p^2**
Race	2	1.15	1.40	.248	.006	2	4.83	8.70	<.001	.036	2	7.20	4.61	.010	.019
Gender	2	4.45	5.50	.004	.023	2	.55	.96	.383	.004	2	3.15	2.00	.137	.009
Sex. Orientation	2	1.94	2.36	.095	.010	2	.04	.06	.941	.000	2	1.77	1.12	.328	.005
Pre/Post Election		6.49	8.24	.004	.018	1	.27	.48	.489	.001	1	9.09	10.34	.001	.022

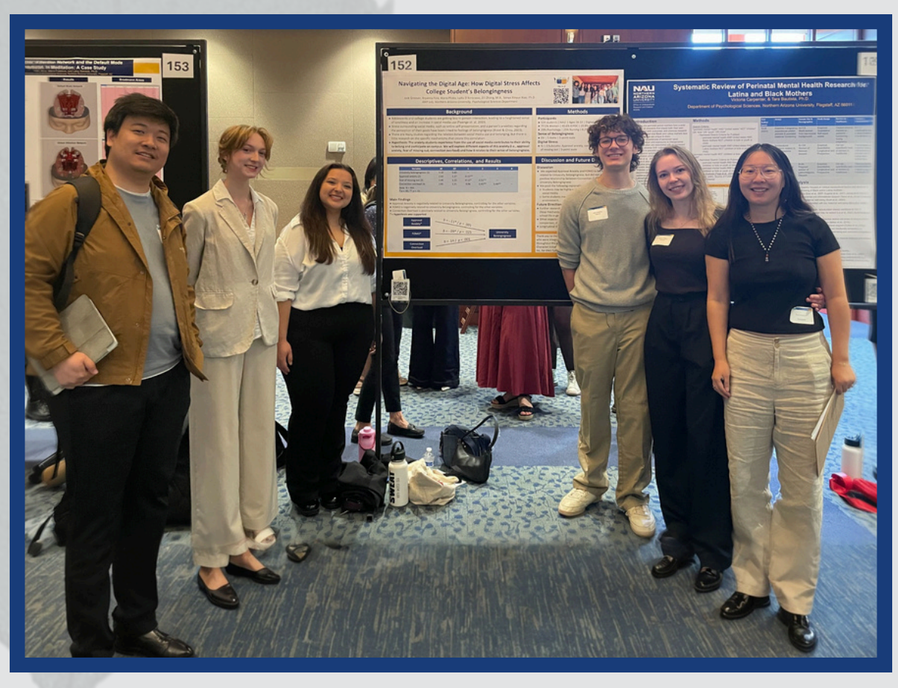
- Ultimately, **there was an increase in college stress post-election, specifically, academic and financial stress**. Further, race and gender were also significant predictors in these models, holding constant one's stress levels.
- **It is likely. . .**
  - Students are feeling the stress of new policies forming post the 2024 election.
  - Those from diverse backgrounds are feeling stress related to identity-based concerns and these findings have potential policy implications.
- This study expands the scope beyond general psychological distress by looking at academic, social, and financial stress. A more diverse sample also adds to current understandings of identity-based stress, suggesting that students from diverse backgrounds are disproportionately affected by perceived policy changes and sociopolitical shifts.
- A limitation of this study is that we used between group data to see differences rather than finding the change in stress levels within groups. Future research would benefit from doing a longitudinal, within group study in order to track changes amongst participants.

Descriptives

	Academic Stress		Social Stress		Financial Stress		
Variable	*M*	*SD*	*M*	*SD*	*M*	*SD*	*n*
Race	-	-	-	-	-	-	-
White	3.31	.90	2.13	.68	2.57	1.24	283
Hispanic/Latino	3.42	.94	2.31	.85	2.93	1.26	106
BIPOC	3.49	.90	2.50	.83	2.91	1.28	78
Gender	-	-	-	-	-	-	-
Man	3.18	.96	2.14	.78	2.59	1.2	89
Woman	3.38	.89	2.25	.76	2.72	1.3	363
Non-Binary & Other	3.99	.58	2.34	.58	3.28	1.2	15
Sexual Orientation	-	-	-	-	-	-	-
Straight	3.31	.93	2.24	.80	2.65	1.3	325
Bisexual	3.43	.84	2.23	.67	2.81	1.3	80
Other Queer	3.57	.84	2.20	.63	2.88	1.2	62

Thanks to the students who participated, research assistants who were integral for data collection, and Dr. Xiao for mentorship throughout this project. We would also like to thank the Educating Character Initiative, Wake Forest University, and Lilly Endowment Inc. for their funding.

Disconnected in a Connected World?



Presenting the poster at the NAU Spring 2025 Undergraduate Symposium!

Using your data, we found that students who feel **anxious about online approval or missing out** on rewarding experiences tend to feel less belonging at NAU — but those in highly connected digital environments feel more belonging.

Navigating the Digital Age: How Digital Stress Affects College Student's Belongingness

Jack Greever, Bryanna Yale, Alana Plisko, Lydia D'Ambrosio, Zili Zhong, M.A., Sonya Xinyue Xiao, Ph.D.
iBAY Lab, Northern Arizona University, Psychological Sciences Department

Background

- Adolescents and college students are getting less in-person interaction, leading to a heightened sense of loneliness and an increase in social media use (Twenge et. al, 2019).
- Stress surrounding social media, such as online self-presentation, and a person's anxieties regarding the perception of their posts have been linked to feelings of belongingness (Bissel & Chou, 2023).
- There are many studies regarding the relation between social media use and belonging, but there is little research on the specific mechanisms that create this correlation.
- **Hypothesis: The anxiety students experience from the use of social media contributes to their ability to belong and participate on campus. We will explore different aspects of this anxiety (i.e., approval anxiety, fear of missing out, connection overload) and how it relates to their sense of belongingness.**

Methods

Participants

- 524 students | NAU | Ages 18-22 | Digital survey
- 77.5% Women | 40.6% BIPOC | 29.8% Queer
- 29% Psychology | 25% Nursing | 8.2% Exercise Physiology

Sense of Belongingness

- DV | 5 Items | 5-point scale

Digital Stress

- IV | 3 Subscales: Approval anxiety, connection overload, fear of missing out | 5-point scale

Descriptives, Correlations, and Results

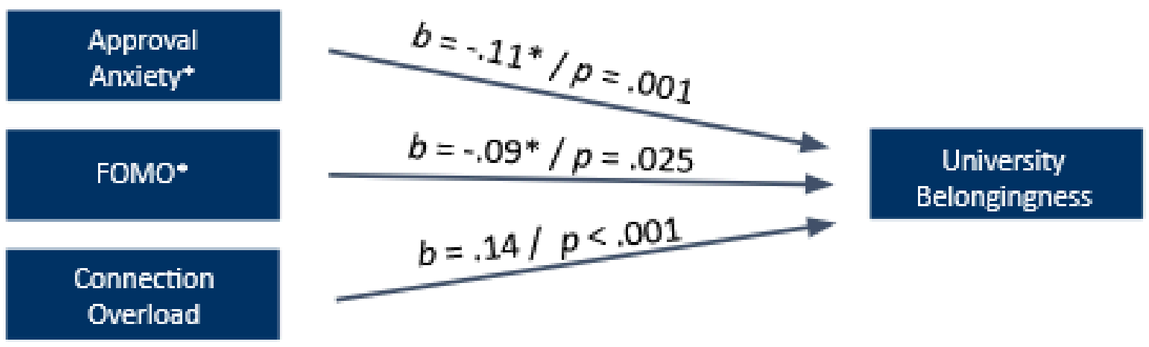
Variable	*M*	*SD*	1	2	3	4
University belongingness (1)	3.50	0.83	—			
Approval anxiety (2)	2.62	1.27	-0.15**	—		
Fear of missing out (3)	2.45	1.12	-0.12*	0.51**	—	
Connection overload (4)	2.81	1.21	0.06	0.45**	0.49**	—

Note. N = 464.
* $p < .05$, ** $p < .01$.

Main Findings

- Approval Anxiety is negatively related to University Belongingness, controlling for the other variables.
- FOMO is negatively related to University Belongingness, controlling for the other variables.
- Connection Overload is positively related to University Belongingness, controlling for the other variables.

**** = hypothesis was supported.***



Discussion and Future Directions

Discussion

- We expected Approval Anxiety and FOMO to be negatively related to University Belongingness, but did not anticipate the positive relationship between Connection Overload and University Belongingness.
- We posit the following explanations:
  - Students may be highly engaged with university life through social media.
  - Some students may perform better in a high-connection environment.

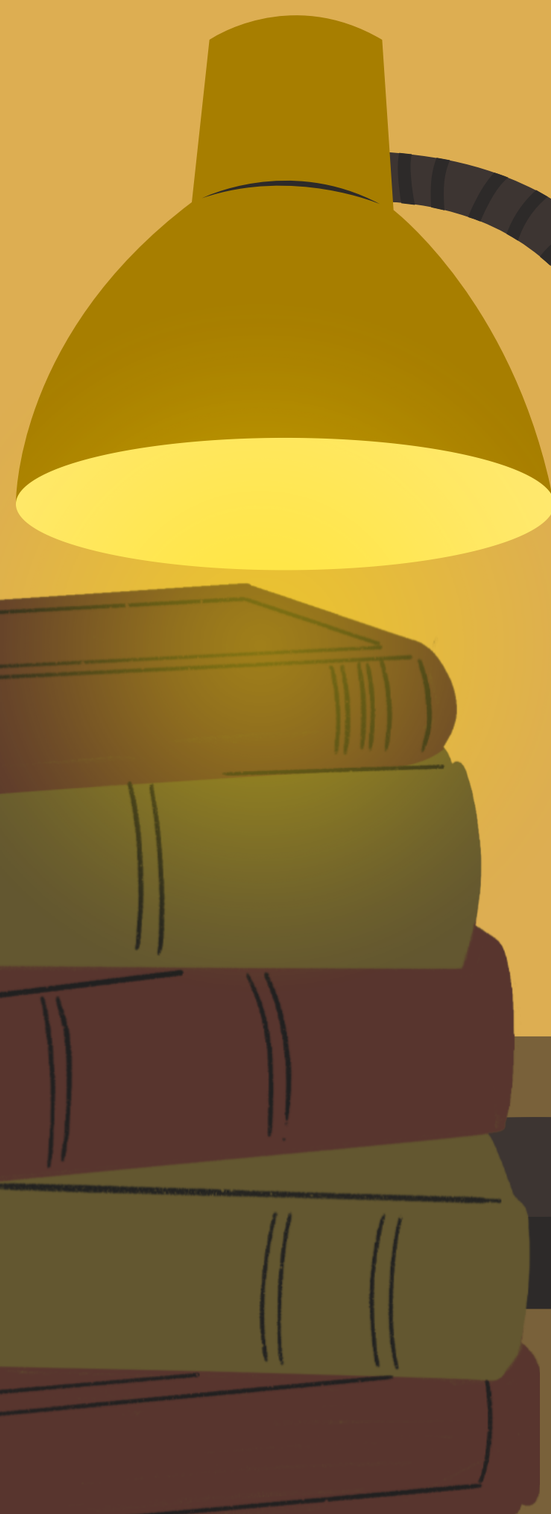
Future Directions

- Further research should be conducted to determine how these mechanisms are affecting their belongingness, and school life in general.
- Other aspects of social media use, such as addictive use and comparison, should also be considered.
- Longitudinal data should also be collected and compared.

Thank you to the students who participated, research assistants who were integral for data collection, and Dr. Xiao for mentorship throughout this project. We would also like to thank the Educating Character Initiative, Wake Forest University, and Lilly Endowment Inc. for their funding.

Want to see the posters and our results up close?

Scan **Blue** for **Political Stress**, and **Green** for **Digital Stress**

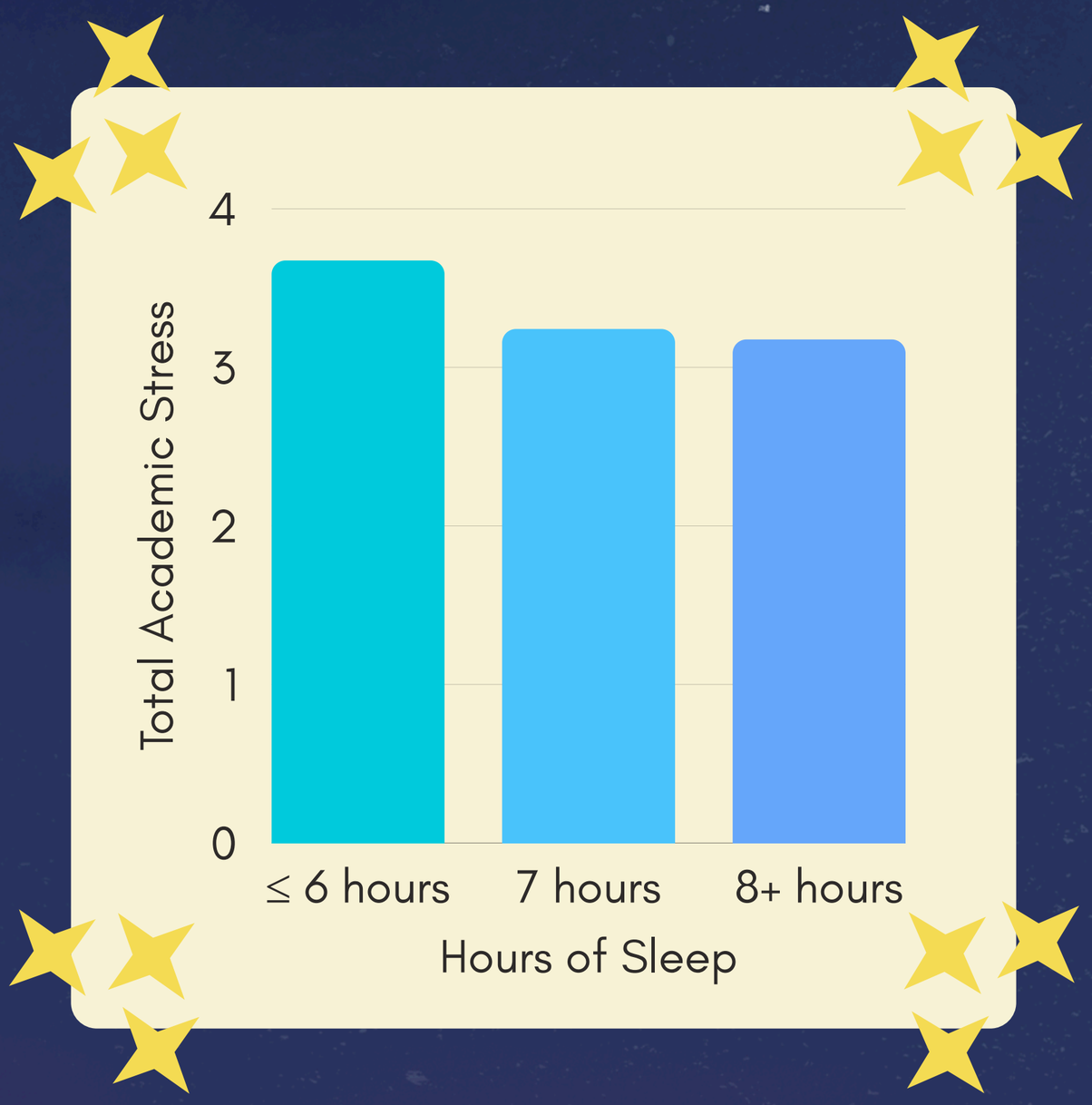


How good is your sleep?

Across all groups, on average you reported Fair to Good quality sleep. Sleep is related to many aspects of your daily life, including academic stress. Want to know more? Keep scrolling!

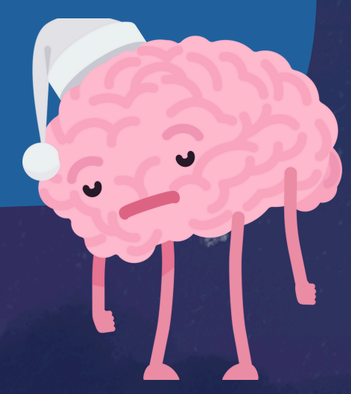
Dissatisfied with your sleep? Stay tuned for tips from the team on Page 13!

Did You Know...



Students that reported getting 6 hours or less of sleep had **higher levels of academic stress** while individuals who got 8 hours or more reported less academic stress.

Your brain needs SLEEP! Otherwise, your grades will hit SNOOZE!



As your hours of sleep per night increased, so did your confidence in being able to meet your goals!

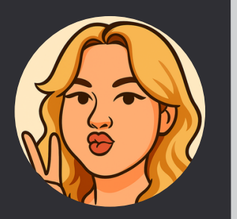
Tired minds do not plan well. Take the time to rest and your brain will thank you!

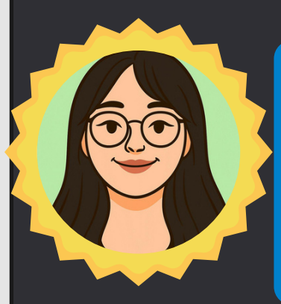
Tips from the Team:

Improving Your Nightly Routine

Bri – "I put on comfy pajamas and listen to my favorite music to fall asleep."

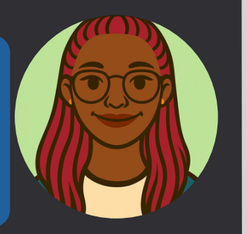
Lydia – "Face masks, self-affirmations, and practicing mindfulness through meditation. These help me de-stress before I go to bed!"

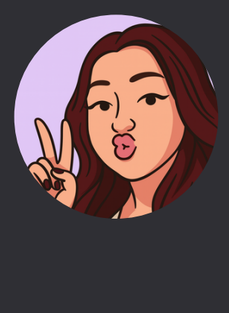




Dr. Xiao – "Try reading, it helps me get my mind off of work and thinking about work-related things. It is much easier to stop reading than to stop a show."

Mars – "Journaling before bed and playing rain sounds while I sleep helps me relax and sleep throughout the night."

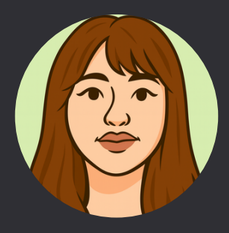




iBAY Lab Group Chat

Yanna – "If intrusive thoughts about tomorrows tasks tend to keep you awake, try writing them down before bed to clear your mind before sleeping."

Alana – "A warm cup of tea and a hearty meal, like soup. Feeling full is good for sleep"



Lexy – "Get off your phone 30-60 minutes before bed, drink a warm chamomile tea, and journal your thoughts."

Landri – "I like to make all my screens warmer, so there is less blue light. I also like to dim my screens at night."

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Other Lab Happenings!

Our team presented posters at the Society for Research in Child Development (SRCD) conference!

iBAY Lab members were recognized at the Spring 2025 Psychological Sciences Awards Ceremony!

Yanna (2nd to left), BJ (2nd to right), and Lexy (not pictured)

Recently, the iBAY lab volunteered at the Flagstaff Family Food Center! (Sep 2025)

College Survival Guide: Resources and Tips!

National Suicide Prevention

Hotline: Call 1-800-273-TALK(8255) or text "START" to 741-741

Medical Services (formerly Fronske Health Center): 928-523-2131

- Aim for at least **7-8** hours of sleep per night.
- Make sure to drink water and have a balanced diet!
- Confide in those who are close to you.
- Aim to get movement in every day (can be as simple as walking around campus!)
- Get involved on campus! (True Blue Connects)
- Make time for yourself and your hobbies.

Crash Course guide to managing mental health in college!

You are **IMPORTANT!** Remember to take care of yourself and to take mindful breaks, especially as finals season approaches!