

**Bringing Mental Health Awareness to the Engineering Centre**

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## **Abstract**

In the STEM field, there is a culture that disincentivizes people from speaking openly about issues they face or seeking help due to maintaining social appearances, cultural walls,

gender expectations, and stigma around conversations about mental wellness. Having open communication about it is of vital importance to erase the taboo nature of these topics and to find solutions. One solution will not fit all, and we don't know the extent of this issue at Florida International University (FIU). Our project aims to hear multiple perspectives on what FIU students are experiencing, what helps them, and what doesn't.

The goals of this project are to create an environment that is more welcoming of conversations about mental wellness, encourage students to use mental health resources they have access to at FIU, and help students feel less alone; we want to form a community at the FIU Engineering Centre. We collected student stories through two sets of online surveys, promoting them through social media posts and posters. We also distributed pamphlets with anonymous student anecdotes linked to our surveys and contact information to gather data. We also conducted interviews with several stakeholders. We also submitted an article to the platform "Medium" (Medium.com) discussing the difficulties of managing symptoms of mental illness as a student.

Our findings include an increased understanding of the mental health challenges among FIU students, participant stories highlighting their experiences, reasons FIU students have for seeking or not seeking mental health assistance, and potential solutions to the mental health challenges they describe. By sharing our findings with the FIU community, our project will help students feel more comfortable utilizing mental wellness resources and it may inspire others to build upon the foundation we have laid.

## **Introduction**

In the Science, Technology, Engineering, and Mathematics (STEM) fields, it is taboo to discuss mental health, and there is shame about seeking help. Informed by relevant literature such as "Resources for Suicide Prevention" by Diego De Leo and Vita Poštuvan and additional studies, we built our project around what we learned – feelings of isolation are not new to the Engineering Centre (EC), starting dialogue about taboo topics in the only way to move past them, having open communication creates a welcoming space for students to be honest, our project focused on multiple perspectives about what FIU students are experiencing, what helps them, and what doesn't.

The goals of this project are to create an environment that is more welcoming of conversations about mental wellness, to encourage students to use mental health resources they have access to at FIU, to help students feel less alone, and to form a community at the FIU Engineering Centre.

## **Research Framework**

We wanted to be as inclusive as possible and consider the way gender identity, economic class, sexuality, race, neurodivergence, and more can impact one's experience with mental health and wellness issues, so we included related questions in our surveys to keep intersectionality in mind. We were also inspired by what we learned about youth participatory action research in the training portion of the JEDI Ambassador Program and had that as our main reference in regard to how we would conduct our research.

The key questions our project sought to answer were:

1. What challenges were FIU students facing that impacted their mental wellness?
2. How do existing wellness resources provide help to the students' mental health, particularly at the Engineering Center?
3. What improvements regarding the mental health support services would the students like to see at FIU EC?

### **Methodology**

We collected data through 2 sets of online surveys, one on Microsoft Forms and the other on Qualtrics (QR code provided in Fig 1), promoted through social media posts on JEDI Instagram, and conducted interviews with three stakeholders at FIU; one was a professor, and two were staff members – one from FIU's Modesto Maidique Campus (MMC) and one from EC. We also published an article to Medium discussing the difficulties of managing symptoms of mental illness as a student.



Fig. 1 – QR code for the Qualtrics Survey that was conducted.

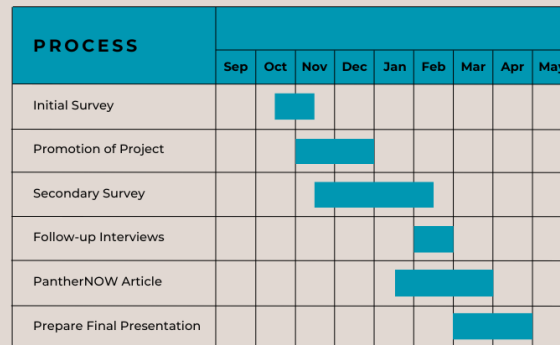


Fig. 2 – QR code to Medium Article about mental health journey, "Self-Isolation, Burnout, and Struggle: How I Survived the Darkest Chapter of My Life" by Aaliyah M. Saintil.

We stayed on track with our goals and divided our work through the use of a Gantt chart, action plan, and consistent WhatsApp communication.

## Mental Health Project Timeline

Gantt Chart



Florida International University

Fig. 3 – The Gantt chart we agreed on and followed to ensure we met deadlines.

Additionally, we distributed pamphlets with anonymous student anecdotes that linked to our surveys and contact information, as well as resources to get help for mental health and wellness struggles. We wanted to make the pamphlets accessible to reach as many people as possible, so we sought to feature stories about students from varied backgrounds, identities, and areas of study discussing the issues they were facing and how they received help. The pamphlets were left in areas of high traffic on the Engineering Centre campus for students to pick up, and some were personally handed out to students.

Lastly, we presented our project at an undergraduate research conference called URFIU in April 2025 as well as a JEDI Conference a week later through a scientific poster presentation (see Appendix A).

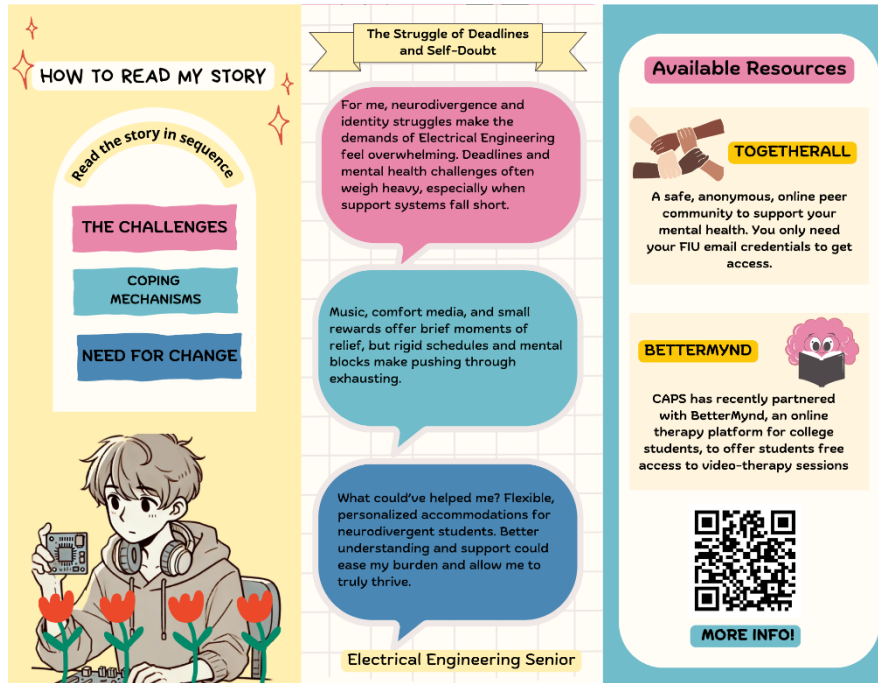


Fig. 4 – One of the pamphlets that were distributed, featuring the story of an anonymous Electrical Engineering student.



Fig. 5 – Another pamphlet that was distributed, featuring the story of an anonymous Computer Science student.

Near the end of our internship, we sent out a final feedback survey to learn what we could have done better, and to hopefully use the feedback to inform future students who would like to build upon the foundation we have laid.



Fig. 6 – QR code for the feedback survey we sent out near the end of our internship.

### **Key Findings**

After receiving 7 responses in our initial survey, we evaluated the results on March 17th and found that time constraints and fear of judgement were two discouraging factors that prevented students from seeking mental wellness services. Additionally, students reported being highly impacted by stress, poor sleep, and academic pressure. Lastly, students stated they do not feel the Engineering Centre properly addresses mental wellness.

After reviewing the responses of the secondary survey, we found that students find the Engineering Center itself to be a “depressing” place, and students already find the resources at the main campus, Modesto Maidique Campus (MMC), to be lacking, and say that the Engineering Center is lacking even more. This finding was aligned with an article published ten years earlier titled “The Engineering Center Still Feels Distant After 30 Years” by Irech Colon discussed how isolated EC feels from the main campus due to location and lack of events on campus, as well as the small size of EC. We also learned how students maintain their mental wellness outside of campus resources, and some of the practices included prayer, listening to music, and engaging in comforting media. Students also provided some insight into what changes they would like to see, such as more personalized accommodations for neurodivergent students, mental wellness workshops at the Engineering Centre, making resources more accessible and known, and creating peer networks relating to dismantling mental health stigmas.

### **Implications and Actionable Recommendations**

Through our research, we found that there are many actions FIU can take to address student concerns on mental health awareness on campus: A mental health committee at the Engineering Centre would be a fantastic implementation to make student health more of a priority; by having a group of staff dedicated to making FIU’s resources known to the students attending classes in the Engineering Centre, it would majorly impact the wellbeing of the student body for the better. Having this committee would also send a positive message to students, proving that FIU is dedicated to unraveling the mental health stigma amongst students and showing students that this is a safe place to ask for help.

Having a liaison from the Counseling and Psychological Services department (CAPS) at MMC oversee communication with the staff in the Engineering Centre would be incredibly beneficial, as having an open line of communication between the two campuses would keep the Engineering

Centre updated with any changes or updates to the services provided by FIU for the students, and tabling events could be organized by the liaison as well at the Engineering Centre. This could also be organized with the Healthy Living Program.

Lastly, an online group therapy program aimed at STEM students to address the toxic struggle culture in our field, feelings of imposter syndrome, feelings of exclusion due to being a minority in this field, and difficulties with time management would be a lovely addition to the group therapy programs CAPS provides.

### **Challenges and Limitations**

We experienced quite a few challenges and limitations during the duration of our project; it was extremely difficult to spread our survey to a wider audience, and even more difficult to inspire students to fill out the full survey. We had an unfortunate amount of half-completed survey submissions somehow, and we had a lot of difficulty having other student organizations and staff members share our surveys and general information about our project amongst their peers, classmates, students, and members of their organizations. Balancing difficult classes while conducting our project proved to be quite a challenge as well. Lastly, we did not have luck printing our pamphlets with the FIU printing centre, so it took more time than we would have liked to print out our pamphlets and spread them around.

Many challenges can reveal themselves during the attempts to implement the suggestions we provided – the staff in the Engineering Centre are stretched thin with all the work they do, as they wear many hats; it would be extremely difficult for them to add another role onto their plate, being a part of a mental health committee. Additionally, we understand that hiring new staff is costly not only financially, but also in regard to time.

### **Conclusion**

This project revealed that many students don't lack resources, but rather they lack accessibility and comfort in using them. The culture of silent suffering can be shifted to proactive wellness by adjusting our messaging and offering informal support systems. The recommendations laid out here offer scalable, student-approved strategies for improving mental health on college campuses.

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## Appendix A

### Research Poster Presentation

**Bringing Mental Health Awareness to FIU Engineering Students**  
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#### INTRODUCTION

In the STEM field, it is taboo to discuss mental health, and there is shame about seeking help.

Informed by relevant literature, we built our project around what we learned:

- Feelings of isolation are not new to the Engineering Center (EC)
- Starting dialogue about taboo topics is the only way to move past them.

Having open communication creates a welcoming space for students to be honest.

Our project focused on multiple perspectives about what FIU students are experiencing, what helps them, and what doesn't.

#### PURPOSE

The goals of this project are:

- to create an environment that is more welcoming of conversations about mental wellness
- encourage students to use mental health resources they have access to at FIU
- to help students feel less alone
- to form a community at the FIU Engineering Center

#### PRELIMINARY FINDINGS

After receiving 7 responses in our initial survey, we evaluated the results on March 17th and found this:

- The following have prevented students from seeking mental wellness services:
  - Time Constraints
  - Fear of Judgement
- Students reported being highly impacted by:
  - Stress
  - Poor Sleep
  - Academic Pressure
- Students do not feel the Engineering Center properly addresses mental wellness.

"I feel like [mental health] is taken lightly and it shouldn't be..."  
 Scott P. Computer Science, His-year

#### CONCERNS ON EC'S ATTENTION TO MENTAL HEALTH

When asked "How do you feel about the Engineering Center's attention to students' mental health?", students responded:

"I personally feel that not much information about the mental health resources available is given in the Engineering Center to students."  
 Nadine S. Biomedical Engineering, Sophomore

"It is very lacking, with less resources and focus than the already-lacking attention in [Monterio Maidique Campus] (MMC)."  
 Dorian O. Architecture, Sophomore

"I feel like they pay no mind to how students are feeling... [The College of Engineering and Computing] (CEC) is overpraising."  
 Terece K. Mathematics, Freshman

#### METHODLOGY

We collected data through:

- 2 sets of online surveys
- promoting through social media posts and posters
- distributing pamphlets with anonymous student anecdotes that linked to our surveys and contact information
- conducted interviews with several stakeholders

We also published an article to Medium discussing the difficulties of managing symptoms of mental illness as a student.

#### Mental Health Project Timeline

Gantt Chart

PROCESS	Nov	Dec	Jan	Feb	Mar	Apr	May
Initial Survey							
Revision of Project							
Secondary Survey							
Follow-up Interviews							
Final Review Article							
Prepare Final Presentation							

We measured our progress using Gantt Charts. It was invaluable over the past two semesters and updated consistently to account for schedule changes. It helped keep us consistent.

#### STUDENT RECOMMENDATIONS TO IMPROVE MENTAL HEALTH

After following up with the previous participants in an additional survey, they had the following suggestions:

"A more robust support structure specifically targets the intensity of STEM fields the students are experiencing, as well as more in-class support for neurodivergent and disabled students in STEM majors."  
 Elijah B. Physics, First-year

"I would like to see that the Engineering Center (EC) promotes and informs the students about the mental health resources available."  
 Niyah M. Civil Engineering, Senior

"Having some kind of mental health resource on EC would be nice. I'd also like if there was more open dialogue about how certain class structures and academic environments create stress, and what can be done to remedy that."  
 Rameesha S. First-year, Engineering, Sophomore

Some students also expressed additional concerns about identity and acceptance:

"I've tried to inform colleagues, students, and professors about my pronouns throughout the years, but have not been successful, with the exception of other queer students."  
 Waqas W. Computer Engineering, Junior

"I do often receive microaggressions as a feminine-presenting person. This includes dismissing my input, being told I'm too sensitive, getting weird looks for defending myself, etc."  
 Nithya K. Electrical Engineering, First-year

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Fig. 7 – The research poster we presented at the 2025 URFIU Conference in April and JEDI Showcase a week later featuring participant quotes, research findings, and more.