

MASTER OF PUBLIC HEALTH

Johns Hopkins Bloomberg School of Public Health & IIHMR University

PRACTICUM REPORT

By

Chithra Maria Alexander

Cohort-11

2023- 25

Under the Guidance of

Dr. Neetu Purohit

Professor, IIHMR University

Associate, Johns Hopkins Bloomberg School of Public Health

Preceptors:

Dr. Glenn. Muschert

Professor, Khalifa University

Dr. Herbert. Jelinek

Professor, Khalifa University

CERTIFICATE FROM FACULTY ADVISOR

TO WHOMSOEVER MAY CONCERN

This is to certify that **Chithra Maria Alexander**, student of Master of Public Health Program offered by IIHMR University, Jaipur in cooperation with Johns Hopkins Bloomberg School of Public Health, Baltimore, has undergone Practicum Training at the College of Medicine and Health Sciences at Khalifa University from January 14, 2025, to March 21, 2025.

The Candidate has successfully carried out the study designated to her/his during practicum training, and her approach to the study has been sincere, scientific, and analytical.

The Practicum Training is in fulfilment of the course requirements.

I wish her success in all his future endeavours.

Dr Neetu Purohit,

Practicum Advisor

Professor, IIHMR University Jaipur

CERTIFICATE BY SCHOLAR

This is to certify that the Practicum Project titled “**Comprehending self-efficacy and interoception and their effect on mental health among university students in the UAE**” submitted by me, **Chithra Maria Alexander**, with Enrolment No: IIHMR-U/07/2023-2025/0062 and Hopkins ID:3AEDA2 under the guidance of Dr Neetu Purohit as my practicum advisor and Dr Glenn Muschert, Dr Herbert Jelinek as my preceptors, for award of Master of Public Health carried out during the period January 14, 2025, to March 21, 2025 embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

Chithra Maria Alexander

MPH Cohort- 11

2023-2025

CERTIFICATE FROM THE ORGANIZATION



جامعة خليفة
Khalifa University

To Whom It May Concern

Date: April 16th, 2025

This is to certify that Ms. Chithra Maria Alexander, a student of the Master of Public Health Program at IIHMR University in collaboration with Johns Hopkins Bloomberg School of Public Health, completed her practicum training at Khalifa University from January 14th, 2025, to March 21st, 2025, under the guidance of Professor Neetu Purohit, IIHMR University, and Khalifa University preceptors Professor Glenn Muschert and Dr. Herbert Jelinek.

During the placement, Ms. Chithra conducted a study titled "Comprehending self-efficacy and interoception and their effect on mental health among university students in the UAE." The practicum involved a systematic literature review and a cross-sectional survey of 112 students, utilizing validated questionnaires to assess mental health, self-efficacy, self-regulation, and interoceptive awareness. The results indicated that self-efficacy and self-regulation are protective factors against psychological distress, while interoceptive awareness showed a complex relationship with mental health. The study highlights the importance of these psychological traits in promoting resilience and suggests that culturally tailored interventions could enhance student well-being in the UAE.

During the placement, Ms. Chithra was sincerely engaged with a professional demeanor, committed to academic excellence, and meaningfully contributed to the research activities of Khalifa University. She was an asset to the research team, and we wish her all the best in her future professional endeavors.

Dr. Glenn W. Muschert
Professor of Sociology
Department of Public
Health & Epidemiology
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A special thank you to Dr. Herbert Jelinek (Associate Professor, Khalifa University) for his mentorship and guidance in this project. I sincerely thank Mr. Santosh (Statistician, CMC, Vellore) for his expertise and support in analyzing the study data. I am also deeply thankful to Dr. Marie Diener-West (MPH Chair, Johns Hopkins Bloomberg School of Public Health) and Dr. Seema Mehta (Professor, IIHMR University) for their unwavering support, patience, and encouragement throughout my academic journey.

Additionally, I would like to thank Jill (MPH Academic Coordinator) for her invaluable administrative assistance. Finally, I owe my deepest gratitude to my partner, Denis, for his constant belief in me, my father, Mr. Biju, for his unwavering support and sacrifices, and my entire family for their love and encouragement.

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A. ABBREVIATIONS

DASS: Depression Anxiety Stress Scale

GSE: General Self Efficacy Scale

MAIA-2: The Multidimensional Assessment of Interoceptive Awareness – Version 2

PRISMA: Preferred Reporting Items for Systematic Review and Meta-analysis

SSRQ: Short Self-Regulation Questionnaire

UAE: United Arab Emirates

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C. PRACTICUM DETAILS

- Duration: 14th January 2025 to March 21st, 2025
- Hours: 270 Hours
- Name of the Organization: Khalifa University, Abu Dhabi, UAE
- Name of the Division: College of Medicine and Health Sciences
- Name of Department: Public Health and Epidemiology
- Practicum Preceptors: Dr. Glenn Muschert, Professor, Public Health and Epidemiology, Khalifa University
Dr. Herbert Jelinek, Associate Professor, Medical Sciences, Khalifa University
- Faculty Advisor: Dr Neetu Purohit, Professor, IIHMR University, Jaipur

D. LEARNING OBJECTIVES

The competency focus of this practicum is **Analytics/Assessment Skills and Ethics & professionalism in public health**

1. Define a public health problem by conducting a comprehensive needs assessment within the target population.
2. Collect, analyze, and interpret data to identify risks and prioritize community health issues.
3. Utilize epidemiological and biostatistical tools to study and propose solutions for public health problems.
4. Integrate knowledge from multiple public health disciplines to create a multidisciplinary approach to solving complex public health issues.
5. Address ethical considerations, including informed consent, confidentiality, and respect for all participants in the research proposal.
6. Align the practicum activities with institutional and international research ethics standards, including IRB approval processes.

E. ABOUT THE ORGANIZATION

Khalifa University of Science and Technology, located in Abu Dhabi, is a leading research-intensive academic institution in the United Arab Emirates (UAE). Established through the merger of several prominent higher education entities such as Masdar Institute of Science and Technology (MI), Petroleum Institute (PI), and Khalifa University of Science, Technology and Research (KUSTAR), the university has rapidly evolved into a center of excellence for science, engineering, and health sciences. It plays a vital role in advancing the UAE's national innovation agenda, particularly through interdisciplinary research and strategic partnerships. Within the context of public health, Khalifa University contributes through cutting-edge research, academic programs, and applied community engagement that address regional and global health challenges. (Khalifa University, 2024)

- a. **Vision:** A globally leading university, stimulating positive change and shaping the future (Khalifa University, 2024).
- b. **Mission:** Catalyse growth in the rapidly evolving knowledge-based economy of Abu Dhabi and the UAE, being a destination of choice for world-class education, research, innovation, and enterprise to the benefit of society locally and globally. (Khalifa University, 2024)
- c. **Core Values:** Excellence, Integrity, Collaboration, People-centricity, Pace, and Agility. Khalifa University operates under a set of guiding principles that reflect its commitment to excellence and societal impact:
 - **Innovation and Research Excellence:** Promoting a culture of inquiry and discovery that leads to tangible societal benefits.
 - **Integrity and Ethics:** Upholding the highest standards of academic and professional conduct.
 - **Collaboration and Inclusion:** Encouraging interdisciplinary teamwork and inclusive practices across all university domains.
 - **Sustainability and Responsibility:** Advocating for solutions that are environmentally, socially, and economically sustainable.
 - **Community Engagement:** Building strong relationships with the broader community to support health, education, and well-being.

d. Strategic Verticals

Khalifa University's activities are organized around several key verticals that align with national priorities and global trends. These include:

- **Biomedical and Health Sciences**
- **Engineering and Robotics**
- **Artificial Intelligence and Digital Transformation**
- **Clean Energy and Sustainability**
- **Space and Aerospace Technology**
- **Public Policy and Social Sciences**

Within these verticals, public health intersects most prominently with biomedical innovation, health systems research, and data-driven health policy.

e. Departments and Entities Engaged in Public Health

Several departments and research centres at Khalifa University are directly or indirectly engaged in public health research, education, and practice:

- **College of Medicine and Health Sciences (CMHS):** Through its MD and postgraduate programs, CMHS focuses on translational research, epidemiology, health systems, and community medicine.
- **Department of Biomedical Engineering:** Conducts research on medical devices, diagnostics, and bioinformatics, supporting preventive and personalized health approaches.
- **Public Health Research Center (PHRC):** Engages in epidemiological and health policy research, particularly targeting non-communicable diseases, health disparities, and pandemic preparedness.
- **Artificial Intelligence and Intelligent Systems Institute:** Applies machine learning and big data analytics to health informatics and disease surveillance.
- **Healthcare Engineering Innovation Center (HEIC):** Develops technological solutions for improved healthcare delivery, patient monitoring, and health infrastructure.

- **Health, Safety, and Environment (HSE) Unit:** Works on occupational health, risk assessment, and environmental health issues both within the university and in partnership with external stakeholders.

Through these interdisciplinary platforms, Khalifa University actively contributes to the advancement of public health in the UAE and beyond, integrating scientific innovation with community impact.

F. ROLES AND RESPONSIBILITIES DURING THE INTERNSHIP

As a research volunteer, I was initially asked to map out the kind of interest area I wanted to specifically work with. The first few weeks were spent interacting with faculty and students, getting to understand the work environment, and even sharing my experiences and ideas with them. It was also accompanied by literature searches, reading, and finalizing a potential research proposal. There were multiple meetings with the preceptors, and finally, after a lot of discussion, I was set to work on a subsidiary study of a Project in Interoception. The study is part of a multidisciplinary project involving the disciplines of medical sciences, public health, biotechnology, and physics. The primary aim of the project is to understand the role of interoception on mental health and self-efficacy among other variables. Concerning maintaining confidentiality of intellectual property, I would not be able to present the details about the main project. The main responsibilities, roles, and activities carried out through the internship are given below.

a. In Project

- Attend and participate in project team meetings
- Conduct a literature review for the study.
- Prepare the Research Proposal
- Prepare the required forms, or documents for the study
- Collect, Review and Analyze data for Study.
- Prepare interim and final reports for preceptor review.
- Develop evidence-based recommendations for healthcare policies and mental health support.
- Prepare the scientific report of the work completed to share findings at scientific conferences or meetings.
- Participate in scientific meetings and conferences to disseminate information.

Stage 1: The first task I completed was to do a systematic literature review on the topic, which was also accompanied by efforts to understand the background of the study site.

Interactions with the students, faculty, and staff from the university and within the region helped a lot in gaining a broader understanding.

Stage 2: This was followed by drafting a research proposal for the Intended study, which included gathering the required tools, permissions, and data for the same. An Online Questionnaire was developed in different formats (Google form, Microsoft Forms, and Monkey Survey), which incorporated 4 different questionnaires/tools for data collection.

Stage 3: Designing Posters and other materials to disseminate among the target population.

Stage 4: Administer the forms and start data collection. The Data collection was a team effort by the principal investigators and a few other PhD students involved with the main interoception project.

Stage 5: The data was cleaned and transformed into an analysable format.

Stage 6: SPSS 30 was personally purchased to conduct the data analysis. Further, the data was closely inspected, and with the feedback, mentorship of the preceptors, and a professional biostatistician, the data analysis was conducted

Stage 7: Dissemination of Results -The obtained results were converted into tables and graphics and aided with scientific writing for clear understanding.

Stage 8: Practicum Report Preparation and Submission.

Stage 9: Post Practicum Report Submission. The intention is to Compare Results with existing data sets, add more participants to the dataset, and finally collect more information on the demographic variables for better understanding and clearer dissemination of obtained relationships.

Stage 10: Identify conferences /scientific meetings to disseminate the study results and engage in dialogue to enhance the welfare of university students through the findings of the study

Stage 11: Identify journals and platforms to publish the study and thereby arrange the study results to a publishable format.

b. Associated activities

- Interacted with the PhD cohort students for a short session on “Navigating challenges as a postgraduate public health scholar”.
- Participated in the **First Public Health Forum** at the Institute of Public Health at **United Arab University, Al-ain**. It helped **me** understand the public health landscape in the UAE and provided an opportunity to network with eminent researchers, faculty, and students in the field.
- Participated in the 2nd Dialogue **International Dialogue of Civilizations & Tolerance Conference - 2nd Edition** along with the Khalifa PhD cohort, where we were able to listen and interact with eminent leaders and members actively working in multidisciplinary fields and their intentions to nurture a tolerant and civilized world.
- Capstone thesis accepted for Poster Presentation at IUPHE World Conference on Health Promotion to be held in Abu Dhabi from May 13-16,2025.

G. CHALLENGES FACED

- It was challenging to start over in a new country with different cultural norms, language, and values.
- Starting fresh and building a good professional network was also an interesting task.
- Getting used to a different academic setup was also a part of the challenge. It also took me some time to get adjusted to the laborious and non-transparent administrative approaches currently existing in the country.
- Finally, managing data analysis without any statistical team or department’s help was a new experience.

H. MY LEARNINGS FROM THE PRACTICUM

- Gained adaptability by navigating cultural differences, language barriers, and unfamiliar societal norms in a new country.
- Developed resilience and self-initiative while establishing a professional network from scratch.
- Acquired a deeper understanding of diverse academic structures and learned to navigate complex administrative systems with patience and persistence.

- Strengthened my data analysis skills by independently managing research without support from a dedicated statistical team, fostering greater self-reliance and problem-solving abilities.
- Fostering collaboration and keeping an open mind to learn can open up endless growth opportunities.

I. PRACTICUM REPORT: “Comprehending self-efficacy and interoception and their effect on mental health among university students in the UAE”.

Abstract

Background: In recent years, student well-being within university environments has become a growing global public health concern. Increasing attention is being paid to the role of mental health and psychological resilience in influencing students’ academic success and long-term personal development. Two constructs of relevance are self-efficacy—defined as the belief in one’s ability to complete tasks and reach goals—and interoception, the awareness of internal bodily states. Theoretical frameworks such as Bandura’s self-efficacy theory and the active inference model suggest that these factors may play a crucial role in emotional regulation and coping with stress. This practicum study aimed to explore how self-efficacy and interoceptive awareness relate to mental health and academic well-being among university students in the UAE.

Methods: A systematic literature review (based on PRISMA guidelines) was carried out to map existing research, followed by a cross-sectional survey of 112 students at Khalifa University (Abu Dhabi) from October 2024 to March 2025. Participants completed validated questionnaires: the Depression Anxiety Stress Scales (DASS-21), General Self-Efficacy Scale (GSE), Short Self-Regulation Questionnaire (SSRQ), and Multidimensional Assessment of Interoceptive Awareness (MAIA-2). Data were analyzed using descriptive statistics, reliability testing, and correlation analysis.

Results: All psychometric scales showed good to excellent reliability (Cronbach’s $\alpha = 0.83\text{--}0.92$). Overall, students’ DASS-21 scores indicated mostly normal to mild levels of depression, anxiety, and stress – e.g. 82% were in the normal range for depression and 62.5% for anxiety. The mean general self-efficacy score was moderate (28.83 ± 5.45), and self-regulation capacity (SSRQ mean 99.4 ± 23.8) varied widely. Interoceptive awareness (MAIA-2) subscale scores ranged from 2.07 to 3.03 (on a 0–5 scale), with “Emotional Awareness” highest and “Not Distracting” lowest on average. Correlation analyses revealed that higher self-efficacy and self-regulation were significantly associated with better mental health – they correlated negatively with depression, anxiety, and stress ($r \approx -0.25$ to -0.38 , $p < .01$).

Interoceptive facets showed nuanced relationships: the tendency **not** to worry about bodily sensations was linked to lower anxiety ($r = -0.40$, $p < .001$), whereas greater noticing of sensations and less distraction from them were linked to higher anxiety ($r \approx$

0.23–0.30, $p < .05$). Emotional awareness of bodily states showed a modest positive correlation with stress ($r \approx 0.22$, $p < .05$). No MAIA facets were significantly correlated with depression in this sample.

Conclusion: Self-efficacy and self-regulation appear to serve as protective factors against psychological distress, whereas interoceptive awareness demonstrates a more complex association with mental health, contingent on individual coping mechanisms. Given the limitations of the current study, including its cross-sectional design and single-institution sample, further longitudinal and multi-site research is warranted to validate and extend these findings.

Comprehending self-efficacy and interoception and their effect on mental health among university students in the UAE

Chapter 1: Introduction

Mental health among students, especially university students, is of critical importance with respect to their overall well-being as well as academic success. The transition to higher educational environments often coincides with newfound stressors in the form of academic pressures, social changes, and abrupt exposure to greater autonomy, which at times may be the cause of psychological distress (Grøtan et al., 2019). These concerns have sparked interest in psychological factors that may impact student well-being. Two such factors are **self-efficacy** – one’s belief in their capability to organize and execute actions required to manage prospective situations – and **interoception** – the perception and interpretation of internal bodily signals. This review has been done to understand the existing literature on how general and academic self-efficacy and the cognitive, emotional, and physiological components of interoception relate to mental health outcomes (anxiety, depression, stress, well-being) among university students.

Self-Efficacy and Mental Health in University Students

Self-efficacy refers to an individual’s confidence in their ability to perform tasks and handle challenges (Carey & Forsyth, 2008). According to Bandura’s social cognitive theory, self-efficacy influences how people think, feel, and act when facing difficulties. Individuals with high self-efficacy view challenges as manageable and tend to approach stressful tasks with optimism and resilience, whereas those with low self-efficacy may feel helpless and overwhelmed (Huang et al., 2021). Bandura (1977) identified mastery experiences, vicarious learning, verbal persuasion, and interpretation of physiological states as key sources that shape self-efficacy beliefs. In the academic context, academic self-efficacy describes students’ confidence in managing their learning and achieving academic goals, a domain-specific application of the broader construct.

A robust body of evidence links greater self-efficacy to better mental health outcomes. **High general self-efficacy is associated with lower levels of anxiety and depression and higher life satisfaction** (Lin et al., 2020). This study found that among university students, those with higher self-efficacy reported fewer depressive symptoms and less anxiety. Similarly, longitudinal research indicates that **low self-efficacy is a risk factor**

for psychological distress: students with lower confidence in handling stress are more prone to negative emotions, anxiety, and depressive symptoms.

In Norway's SHoT study, students with low academic self-efficacy were four times more likely to experience severe mental distress and delayed academic progress (Grøtan et al., 2019). Similarly, Lande et al. (2023) observed that adolescents with stronger emotion regulation and reappraisal abilities reported higher self-efficacy and fewer psychological symptoms.

In the UAE, cultural norms emphasizing resilience and family honor may both support and suppress self-efficacy. Saleh (2012) found that low self-efficacy significantly predicted higher loneliness among Emirati students, a factor closely tied to depressive symptoms. The sociocultural context may therefore influence how self-efficacy manifests and interacts with distress.

Interoception and Mental Health

Interoception refers to the perception and awareness of internal bodily states—such as heartbeat, hunger, and breathing (Khalsa et al., 2018). It is now recognized as fundamental to emotional processing and mental health, with alterations in interoceptive functioning noted across anxiety, depression, and somatic disorders (Jenkinson et al., 2024).

Garfinkel et al. (2015) distinguish between interoceptive accuracy (objective detection), sensibility (subjective awareness), and awareness (metacognitive insight). Research shows that individuals with anxiety often over-attend to bodily cues, while those with depression may experience blunted interoception. Notably, interoceptive accuracy (e.g., heartbeat detection tasks) shows mixed results, suggesting that interpretation and emotional awareness of bodily signals may be more predictive of mental distress than physiological sensitivity alone.

The Multidimensional Assessment of Interoceptive Awareness (MAIA) has helped demonstrate that dimensions like “Noticing,” “Emotional Awareness,” and “Body Trust” are associated with anxiety levels and emotional dysregulation in students (Britton et al., 2021). In the context of UAE, where somatic expression of distress is common due to stigma around mental illness, interoceptive awareness may play a distinct and underexplored role.

Theoretical Frameworks

Bandura's self-efficacy theory posits that belief in one's competence influences emotional regulation and persistence under stress (Bandura, 1977). Meanwhile, the active inference model (Paulus et al., 2019) explains interoception as a predictive system: The brain continuously anticipates internal states and updates based on actual input. Dysfunction in these predictions—either hypervigilance (as in anxiety) or dampening (as in depression)—can fuel emotional disorders.

Barrett et al. (2016) applied this model to depression, proposing that biased allostatic predictions lead to reduced responsiveness and energy—a core depressive symptom. This highlights how both cognitive and bodily self-awareness are essential to emotional regulation.

Integrating Self-Efficacy and Interoception

Few studies examine how self-efficacy and interoception interact, though both influence emotional resilience. A student with high self-efficacy may better interpret bodily stress signals and regulate responses, whereas one with low efficacy may catastrophize internal cues, exacerbating anxiety.

Lande et al. (2023) suggested that emotion regulation (linked to interoception) enhances general self-efficacy, implying a possible reciprocal relationship. However, empirical data on their combined effects—especially in Middle Eastern students—are scarce.

Relevance to UAE Students

In the UAE, cultural expectations, familial ties, and academic pressures converge uniquely. Students may face internal conflict between emotional suppression (a cultural norm) and growing mental health awareness. Yet, validated Arabic tools for interoception and self-efficacy remain limited (Ali et al., 2021). Moreover, public universities have only recently begun to integrate wellness programs, despite rising rates of anxiety and depression (Alghadeer et al., 2021).

There is a clear need to explore how internal bodily awareness and confidence in personal capability affect Emirati students' mental health. Understanding these factors in context could inform culturally sensitive interventions—such as mindfulness-based training or self-efficacy workshops—aimed at reducing distress and improving academic and emotional outcomes.

Chapter 2: Rationale and Objectives of the Study

Rationale of the Study

Both self-efficacy and interoception play crucial roles in student mental health, yet their combined influence remains under-investigated, particularly in the UAE. High self-efficacy supports better stress coping, while interoception shapes emotional awareness and regulation. Psychological models explain how disruptions in either domain can exacerbate mental distress. Given the sociocultural uniqueness of the UAE, there is an urgent need for context-specific research.

This study aims to address that gap by examining the joint impact of self-efficacy and interoception on depression, anxiety, and stress among UAE university students. Findings could guide more targeted, effective interventions to support mental well-being in a region where such work is both novel and necessary.

Objectives of the Project

The primary aim of this study was to explore the relationship between self-efficacy, interoceptive awareness, self-regulation, and mental health among university students in the United Arab Emirates. Specifically, the objectives were to:

1. **Assess the current mental health status** of university students at Khalifa University using the Depression Anxiety Stress Scales (DASS-21).
2. **Evaluate the levels of general self-efficacy** and self-regulation among students and their association with symptoms of depression, anxiety, and stress.
3. **Examine interoceptive awareness** using the Multidimensional Assessment of Interoceptive Awareness (MAIA-2) and explore how different dimensions of interoception relate to mental health outcomes.
4. **Determine the correlation patterns** among self-efficacy, self-regulation, interoceptive awareness, and mental health indicators.

Chapter 3: Methodology

Ethical considerations

Ethical approval for the study was obtained from the Khalifa University Institutional Review Board (IRB). Participants were provided with an informed consent form explaining the study purpose, procedures, voluntary nature of participation, and assurance of confidentiality. They were informed that they could withdraw at any time or skip any question that made them uncomfortable, without penalty. No personal identification information was collected through the survey forms -data were collected either in the form of anonymous (online survey forms that did not record email/IP) or de-identified (paper forms using numeric codes). Completed surveys were kept secure, and digital data was password-protected, accessible only to the research team. Incentives in any form were not given to avoid undue influence.

Inclusion and Exclusion Criteria

The Inclusion Criteria for the Study encompassed individuals enrolled in Khalifa University, UAE as students in undergraduate, graduate, or postgraduate programs. Exclusion criteria applied to those who were research assistants, volunteers, faculty, academic staff, or any other category other than “student” at the Khalifa University.

Study setting and participant demographics

The study adopted a cross-sectional survey design to collect quantitative data from the university students. A non-random sampling method, specifically convenience sampling, was employed to engage with the target sample population of university students at Khalifa University, UAE, for efficient data collection and ease of implementation.

Tools or instruments used for measurement

The electronic platform “Google Forms” was utilized to collect demographic data and other relevant information from the participating students. Printed, self-administered questionnaires in both English and Arabic were distributed to the students who participated in person. In this study, four validated self-report instruments were administered (in English) to measure mental health, self-efficacy, self-regulation, and interoceptive awareness, respectively. Mental health symptoms were assessed using the **Depression Anxiety Stress Scales–21** (DASS-21; Lovibond & Lovibond, 1995), a 21-item questionnaire with three 7-item subscales (Depression, Anxiety, Stress). Respondents rated how much each symptom (e.g., “I found it hard to wind down”)

applied to them over the past week on a 4-point Likert scale from 0 (“did not apply to me at all”) to 3 (“applied to me very much or most of the time”). Subscale scores are summed (higher scores indicate greater distress), and the DASS-21 demonstrates excellent internal consistency (Cronbach’s $\alpha \approx .81-.94$ for the subscales) and convergent validity with other measures of negative emotional states, as reported by its developers (Lovibond & Lovibond, 1995).

General self-efficacy was measured by the **General Self-Efficacy Scale** (GSE; Schwarzer & Jerusalem, 1995), a 10-item scale evaluating one’s overall confidence in handling challenging demands. Each item (e.g., *“I can always manage to solve difficult problems if I try hard enough”*) is rated on a 4-point scale (“Not at all true” to “Exactly true”) and the responses are summed to yield a total score ranging from 10 to 40, with higher scores reflecting greater self-efficacy. The GSE is unidimensional and has shown good reliability (Cronbach’s α in the .76–.90 range) and construct validity (e.g., positively correlating with optimism and work satisfaction, and negatively with anxiety and depression) in its original validation (Schwarzer & Jerusalem, 1995).

Self-regulatory capacity was assessed with the **Short Self-Regulation Questionnaire** (SSRQ; Carey, Neal, & Collins, 2004), a 31-item abridged version of the Self-Regulation Questionnaire that measures the ability to regulate behavior in order to achieve goals. The SSRQ items (e.g., *“I usually keep track of my progress toward my goals”*) are rated on a 5-point Likert scale from 1 (“strongly disagree”) to 5 (“strongly agree”), with some items reverse-scored; a total score is obtained by summing item ratings (after reversals), where higher scores indicate stronger self-regulation skills. The original developers reported that the SSRQ has high internal consistency (Cronbach’s $\alpha \approx .92$) and provided evidence of its criterion validity, noting that higher SSRQ scores were associated with positive outcomes such as fewer alcohol-related problems in a college sample (Carey et al., 2004).

Interoceptive awareness (attention to internal bodily sensations) was measured using the **Multidimensional Assessment of Interoceptive Awareness, Version 2** (MAIA-2; Mehling et al., 2018), a 37-item self-report questionnaire encompassing 8 subscales that capture distinct facets of bodily awareness (Noticing, Not-Distracting, Not-Worrying, Attention Regulation, Emotional Awareness, Self-Regulation, Body Listening, and Trusting). Participants indicate how often they experience each item (e.g., *“I notice changes in my breathing, such as whether it slows down or speeds up”*) on a 6-point scale from 0 (“never”) to 5 (“always”). Subscale scores are calculated as the average of their constituent items (after reverse-scoring nine negatively phrased items), with higher scores

reflecting greater interoceptive awareness in each domain. In its initial development, the MAIA-2 showed adequate internal reliabilities for the eight subscales (Cronbach's α ranging from ~0.66 to 0.87) and an empirically supported eight-factor structure, along with evidence of construct validity (e.g., expected correlations with mindfulness and emotion regulation measures), as reported by the scale's original authors (Mehling et al., 2018).

Data analysis

Statistical analysis was conducted using *IBM SPSS Statistics* version 30. We first computed descriptive statistics (mean, standard deviation, and 95% confidence intervals) for all mental health and psychological measures. Internal consistency reliability of each multi-item scale was evaluated by Cronbach's alpha. Next, the distribution of continuous scores was examined for normality using the Shapiro-Wilk test. This test was chosen for its sensitivity in moderate sample sizes to ensure the appropriate subsequent analysis; a non-significant result ($p > .05$) would indicate approximate normality, whereas $p < .05$ suggests deviation from normal distribution. In our data, most variables showed significant Shapiro-Wilk p -values (indicating non-normal distributions) with few exceptions (e.g., DASS-21 Stress and certain MAIA subscales). Therefore, depending on normality findings, either Pearson's product-moment correlation (for approximately normally distributed variables) or Spearman's rank-order correlation (for non-normal variables) was used to assess bivariate relationships. All significance tests were two-tailed with an alpha level of 0.05. This analytical approach allowed us to obtain a clear descriptive profile of the sample and to test our hypotheses about associations between mental health outcomes and the psychological constructs of interest in a statistically appropriate manner.

Chapter 4 :Results and Discussion

Reliability and Descriptive Statistics

All instruments demonstrated good to excellent internal consistency: DASS-21 ($\alpha = 0.882$), GSE ($\alpha = 0.837$), MAIA ($\alpha = 0.923$), and SSRQ ($\alpha = 0.901$), confirming their reliability in the present sample. These findings support the internal consistency reported by original scale developers (Lovibond & Lovibond, 1995; Schwarzer & Jerusalem, 1995; Mehling et al., 2018; Carey et al., 2004).

Table 1: Summary of DASS 21, GSE, MAIA and SSRQ (N= 112)

Score	Mean (SD)	95% CI
DASS		
<i>Depression</i>	5.78 (4.05)	5.02, 6.54
<i>Anxiety</i>	6.35 (4.05)	5.59, 7.11
<i>Stress</i>	7.82 (4.18)	7.04, 8.60
GSE		
<i>Total Score</i>	28.83 (5.45)	27.81, 29.85
MAIA		
<i>Noticing</i>	2.81 (1.14)	2.60, 3.02
<i>Not Distracting</i>	2.07 (1.16)	1.86, 2.29
<i>Not Worrying</i>	2.49 (0.74)	2.35, 2.63
<i>Attention Regulation</i>	2.59 (1.00)	2.40, 2.78
<i>Emotional Awareness</i>	3.03 (1.11)	2.82, 3.23
<i>Self-Regulation</i>	2.56 (1.17)	2.34, 2.78
<i>Body Listening</i>	2.15 (1.31)	1.90, 2.39
<i>Trusting</i>	2.79 (1.37)	2.53, 3.04
SSRQ		
<i>Total Score</i>	99.38 (23.75)	94.94, 103.83

The descriptive statistics (**Table 1**) reveal that students reported generally low psychological distress. The mean scores of DASS-21 subscales indicate that, on average, students experienced only mild levels of depression, anxiety, and stress, suggesting relatively good mental health among most participants. The GSE and SSRQ scores point toward moderate-to-high levels of perceived self-efficacy and self-regulatory capacity, which may act as buffers against psychological distress. The highest-scoring

interoception subscale was 'Emotional Awareness,' suggesting that students were relatively in tune with their emotional states.

On the DASS-21, mean depression was 5.78 (SD = 4.05), anxiety 6.35 (SD = 4.05), and stress 7.82 (SD = 4.18), all within the normal to mild range.

Table 2: Frequency of DASS 21 score(N=112)

	Depression	Anxiety	Stress
Normal	92 (82.14)	70 (62.50)	108 (96.43)
Mild	16 (14.29)	15 (14.29)	2 (1.79)
Moderate	4 (3.57)	26 (22.32)	2 (1.79)
Severe	0	1 (0.89)	0
Extremely severe	0	0	0

However, frequency distributions (**Table 2**) highlight that while most students scored in the normal range for depression (82.1%) and stress (96.4%), anxiety was more elevated: 62.5% reported normal anxiety, while 22.3% scored in the moderate range and 0.9% in the severe category. These patterns are consistent with reports showing anxiety as the most common form of student psychological distress globally (Grøtan et al., 2019).

Participants also showed moderately high levels of general self-efficacy (GSE: M = 28.83, SD = 5.45) and trait self-regulation (SSRQ: M = 99.38, SD = 23.75). The reliability of both these scales exceeded 0.85, confirming their stability in this cohort. Regarding interoceptive awareness (measured using the MAIA-2), Emotional Awareness (M = 3.03, SD = 1.11) and Noticing (M = 2.81, SD = 1.14) were highest, indicating frequent awareness of internal signals and emotional states. In contrast, Not Distracting (M = 2.07) and Body Listening (M = 2.15) were lowest, suggesting tendencies to avoid unpleasant internal sensations.

Normality Testing and Correlation Analysis

Normality was assessed using the Shapiro-Wilk test. As indicated in **Table 3**, most variables significantly deviated from normal distribution ($p < 0.05$), including DASS-21 subscales, GSE, SSRQ, and several MAIA subscales. Only DASS-Stress, Attention Regulation, and Self-Regulation were approximately normal ($p > 0.05$). These findings were corroborated by Q-Q plots (Figures 1–13), which visually depict skewness in several distributions. Due to these violations of normality, Spearman's rank-order correlation was used predominantly.

Table 3: Assessment of Normality for DASS-21, MAIA, and SSRQ (N=112)

Parameter	W	p-value
DASS		
<i>Depression</i>	0.946	<0.001
<i>Anxiety</i>	0.965	0.005
<i>Stress</i>	0.978	0.067
GSE		
<i>Total Score</i>	0.909	<0.001
MAIA		
<i>Noticing</i>	0.970	0.013
<i>Not Distracting</i>	0.973	0.024
<i>Not Worrying</i>	0.983	0.182
<i>Attention Regulation</i>	0.988	0.448
<i>Emotional Awareness</i>	0.958	0.001
<i>Self-Regulation</i>	0.980	0.093
<i>Body Listening</i>	0.967	0.007
<i>Trusting</i>	0.959	0.002
SSRQ		
<i>Total Score</i>	0.758	<0.001

! Shapiro-Wilk Test **was preformed**, $p < 0.05 \rightarrow$ Reject normality (data is not normal).

Note: If $W \approx 1$ and $p > 0.05 \rightarrow$ The data does not significantly deviate from normality. If W is much lower than 1 and $p < 0.05 \rightarrow$ The data is likely not normally distributed

Figure 1: Normal Quantile-Quantile Plot of Total Depression Scores

The Q-Q plot for depression scores shows some deviation from the line at the ends, indicating that the data distribution slightly departs from normality. This suggests that a portion of students may experience depression at either higher or lower levels than the average, highlighting the variability in how depressive symptoms manifest in this population.

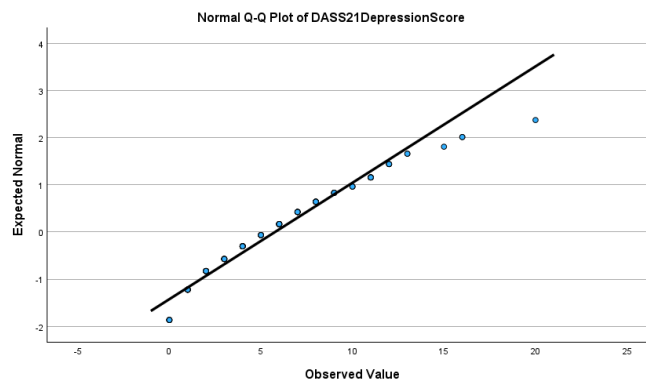


Figure 2: Normal Quantile-Quantile Plot of Total Anxiety Scores

In the case of anxiety, the Q-Q plot reveals a more pronounced divergence from the reference line, particularly in the tails. This implies that anxiety levels are more skewed, with several students reporting significantly elevated anxiety, a finding that aligns with the frequency data showing anxiety as the most prevalent mental health concern among participants.

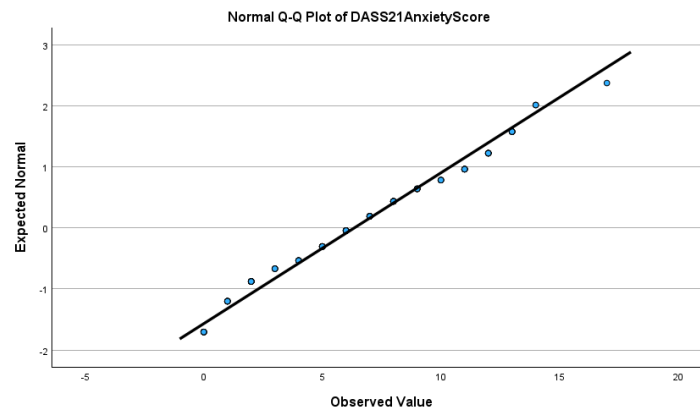


Figure 3: Normal Quantile-Quantile Plot of Total Stress Scores

The distribution of stress scores appears to be relatively close to normal, as indicated by the near-linear alignment in the Q-Q plot. This observation supports the statistical results showing that stress levels, unlike anxiety, were within normal limits for the vast majority of students.

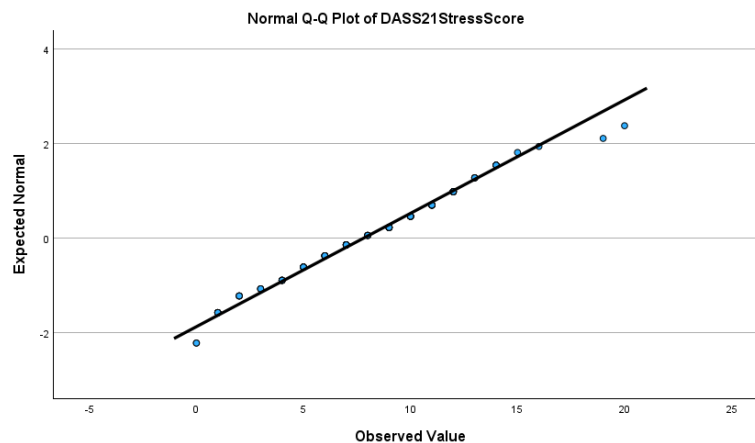


Figure 4: Normal Quantile-Quantile Plot of Total “General Self Efficacy” Questionnaire Scores

The Q-Q plot for self-efficacy shows some deviation from the diagonal line, especially at the lower end. This suggests a slight skewness, with a subset of students reporting lower self-efficacy, potentially impacting their perceived ability to manage stress and academic demands

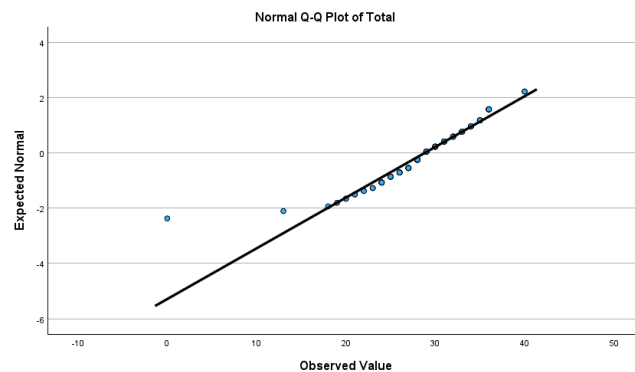


Figure 5: Normal Quantile-Quantile Plot of “Noticing” Score

The ‘Noticing’ subscale, which reflects sensitivity to bodily sensations, shows notable skewness in the Q-Q plot. This indicates that a considerable number of students reported either heightened or blunted awareness of their internal physical states.

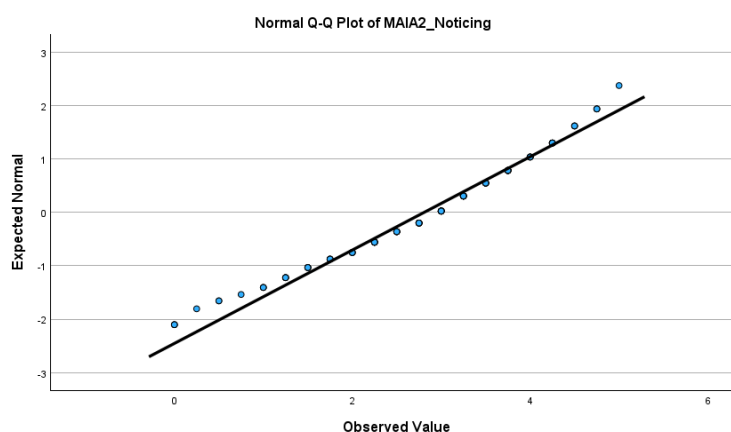


Figure 6: Normal Quantile-Quantile Plot of “Not Distracting” Score

This plot illustrates that the scores for 'Not Distracting' deviate from normality, suggesting a range of tendencies among students regarding their ability to remain attentive to bodily sensations without avoidance. These differences may reflect varying coping styles in response to physical discomfort or distress.

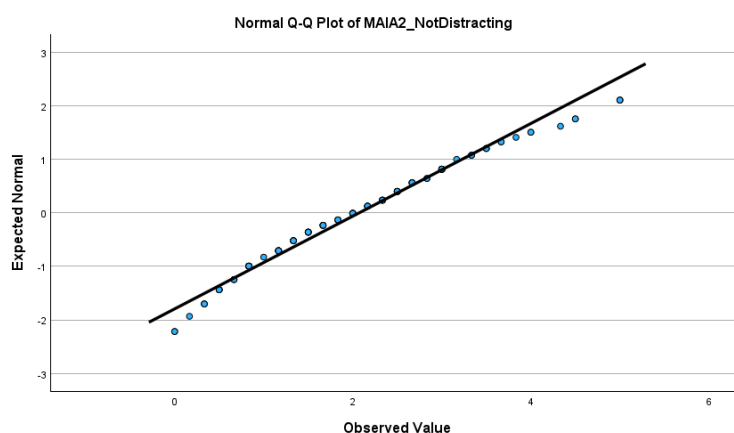


Figure 7: Normal Quantile-Quantile Plot of “Not Worrying” Scores

The Q-Q plot for ‘Not Worrying’ is more linear compared to other subscales, indicating a more balanced distribution. This aligns with its strong negative correlation with anxiety, suggesting that students who are less likely to worry about bodily sensations also tend to report lower anxiety levels.

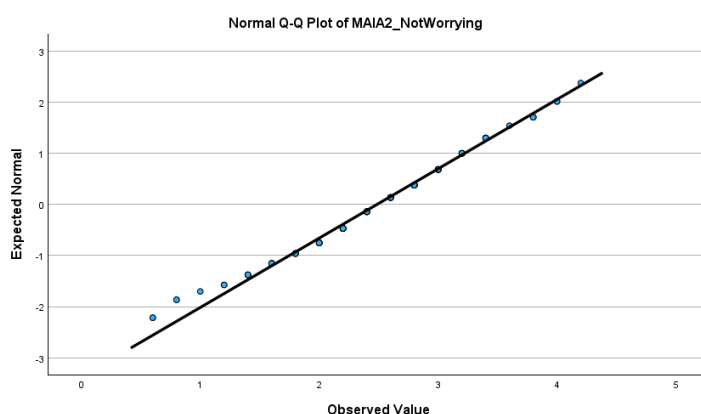


Figure 8: Normal Quantile-Quantile Plot of “Attention Regulation” Scores

The distribution for ‘Attention Regulation’ appears reasonably symmetrical in the Q-Q plot, with minor deviations. This suggests that most students reported consistent levels of ability to focus attention on bodily sensations—a skill often linked to mindfulness and emotional regulation.

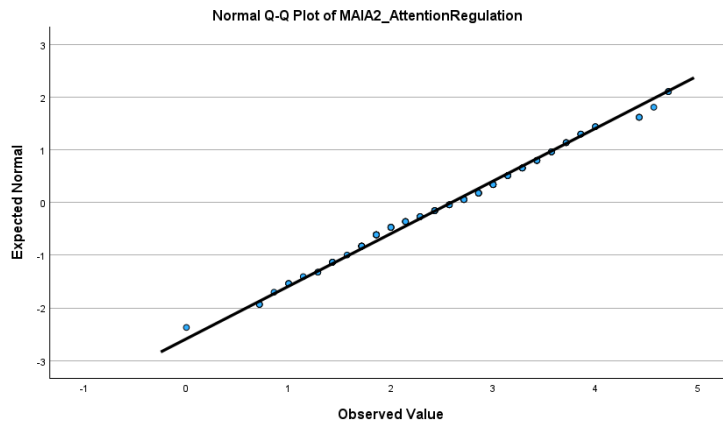


Figure 9: Normal Quantile-Quantile Plot of “Emotional Awareness” Scores

The Q-Q plot of ‘Emotional Awareness’ demonstrates a moderate deviation from normality. This could indicate variability in how students recognize the connection between physical sensations and emotional states, which may contribute to different stress-coping outcomes.

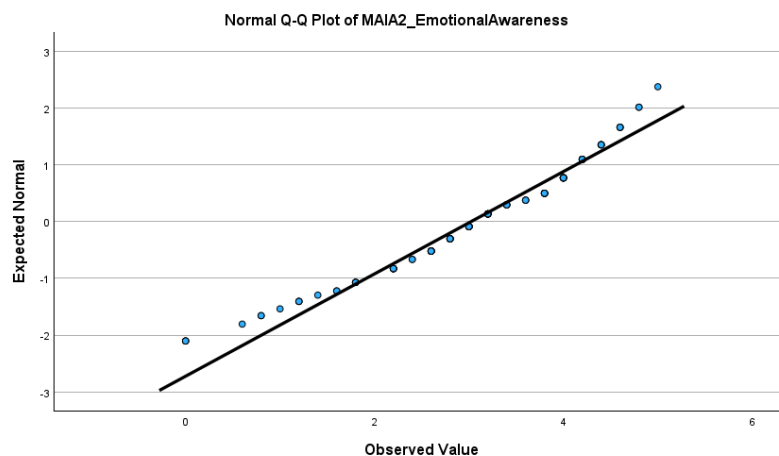


Figure 10: Normal Quantile-Quantile Plot of “Self-Regulation” Scores

The Q-Q plot for this interoceptive self-regulation measure shows a close alignment with the expected distribution, suggesting that students generally report a consistent ability to use body awareness to manage emotional responses.

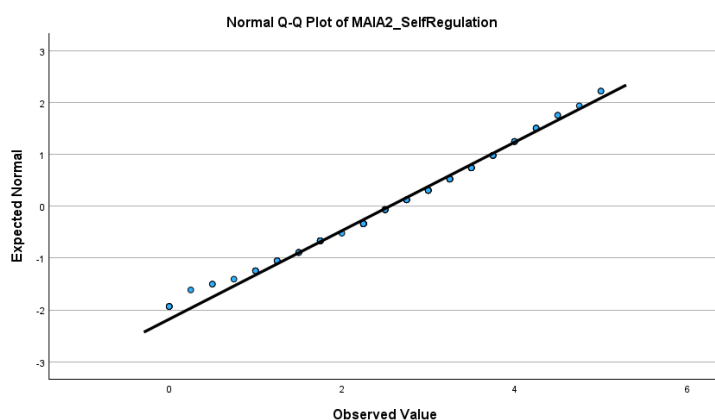


Figure 11: Normal Quantile-Quantile Plot of “Body Listening” Scores

The plot for ‘Body Listening’ reveals a non-normal distribution, with deviations at both ends. This suggests that while some students actively listen to bodily cues, others may lack this skill entirely, indicating a potentially underdeveloped capacity for internal bodily communication in certain individuals.

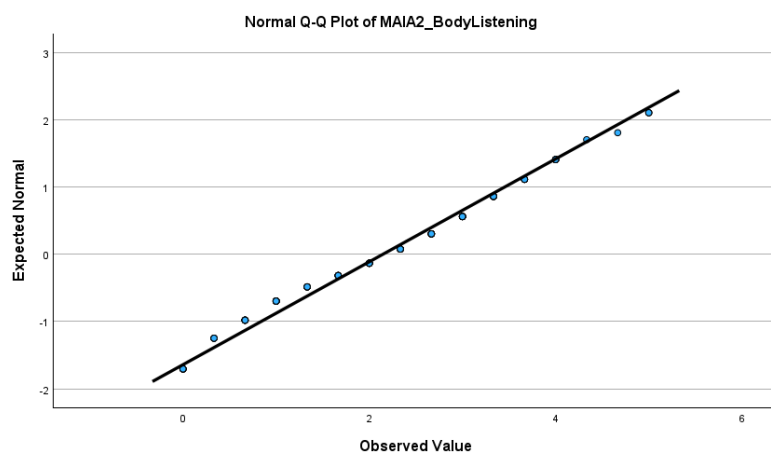


Figure 12: Normal Quantile-Quantile Plot of “Trusting” Scores

The Q-Q plot for ‘Trusting’ displays deviations from normality, hinting at inconsistent levels of trust students place in their bodily sensations. This may reflect broader psychological patterns, such as confidence in internal feedback and its influence on decision-making.

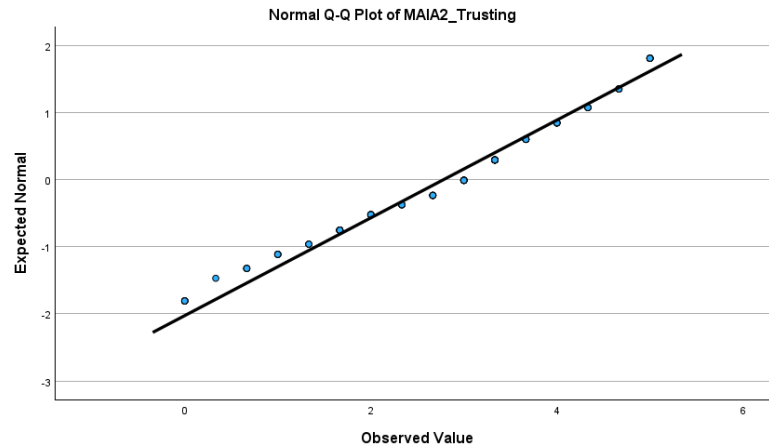
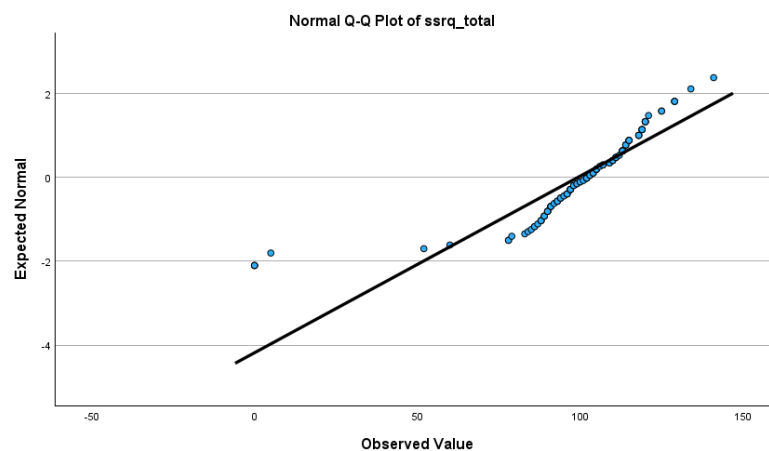


Figure 13: Normal Quantile-Quantile Plot of Total “Short Self-Regulation Questionnaire” Scores

The self-regulation scores from the SSRQ are skewed, as evident in the Q-Q plot. This skewness suggests that although many students reported high levels of self-regulation, there is a subgroup that struggles with self-discipline and goal-directed behavior.



Associations between Interoception, Self-efficacy, and Mental Health

Correlation results are presented in **Table 4**. General self-efficacy was significantly and negatively correlated with all three mental health outcomes—depression ($\rho = -0.262$, $p = .005$), anxiety ($\rho = -0.260$, $p = .006$), and stress ($\rho = -0.248$, $p = .008$)—supporting theories that belief in one’s capabilities enhances emotional resilience (Bandura, 1977; Lin et al., 2020).

Trait self-regulation, as measured by the SSRQ, had even stronger inverse relationships with mental distress: depression ($\rho = -0.398$, $p < .001$), stress ($\rho = -0.354$, $p < .001$), and anxiety ($\rho = -0.260$, $p = .006$). These findings align with prior research showing that higher self-regulation predicts better psychological adaptation in students (Carey et al., 2004).

Table 4: Correlation between Mental Health Metrics and Psychological Measures

	Depression		Anxiety		Stress	
	Coef.	P-value	Coef.	P-value	Coef.	P-value
GSE						
<i>Total Score</i>	-0.262	0.005**	-0.260	0.006**	-0.248	0.008**
MAIA						
<i>Noticing</i>	0.02	0.837	0.230	0.015*	0.173 [#]	0.069
<i>Not Distracting</i>	-0.100	0.294	-0.299	0.001**	-0.173 [#]	0.069
<i>Not Worrying</i>	-0.075	0.430	-0.399	<0.001***	-0.169 [#]	0.076
<i>Attention Regulation</i>	-0.072	0.450	-0.032	0.740	0.0367 [#]	0.702
<i>Emotional Awareness</i>	0.125	0.188	0.173	0.069	0.219	0.020*
<i>Self-Regulation</i>	-0.130	0.173	0.112	0.240	0.094 [#]	0.326
<i>Body Listening</i>	-0.037	0.701	0.117	0.221	0.182 [#]	0.054
<i>Trusting</i>	-0.079	0.407	0.002	0.981	0.047 [#]	0.622
SSRQ						
<i>Total Score</i>	-0.398	<0.001**	-0.260	0.006**	-0.354	<0.001**

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$!! $p < 0.05$ was considered statistically significant.
If the data followed a normal distribution, Pearson’s correlation test (#) was used; otherwise

Interoception and Mental Health

MAIA subscales showed mixed relationships with mental health outcomes. *Not Worrying* was strongly negatively associated with anxiety ($r = -0.399$, $p < .001$), while *Not Distracting* was moderately negatively associated ($r = -0.299$, $p = .001$), implying that students who do not react anxiously to bodily sensations tend to experience less anxiety. In contrast, *Noticing* had a positive correlation with anxiety ($r = 0.230$, $p = .015$), indicating that hypervigilance to bodily sensations may exacerbate distress (Khalsa et al., 2018).

Emotional Awareness was positively associated with stress ($r = 0.219$, $p = .020$), possibly reflecting heightened physiological arousal during stress. Other MAIA facets, such as *Body Listening* and *Trusting*, did not show statistically significant associations with mental health variables, suggesting a more complex or indirect role in distress regulation.

Interoception and Psychological Distress

Interoceptive awareness showed domain-specific effects. The MAIA subscales *Not Worrying* and *Not Distracting* were significantly negatively correlated with anxiety ($p = -0.399$ and -0.299 , respectively; both $p < .01$), indicating that students who experience bodily sensations without reacting fearfully tend to be less anxious. This supports findings from mindfulness research that non-reactive body awareness is protective against anxiety (Mehling et al., 2012).

Conversely, the *Noticing* subscale was positively correlated with anxiety ($p = 0.230$, $p = .015$), suggesting that heightened sensitivity to internal bodily cues, without accompanying coping strategies, may elevate anxiety—a pattern consistent with interoceptive hypervigilance models (Khalsa et al., 2018). *Emotional Awareness* also showed a weak but significant positive correlation with stress ($p = 0.219$, $p = .020$), possibly reflecting heightened somatic-emotional coupling in stressed individuals.

Other MAIA subscales—such as *Body Listening* and *Trusting*—did not demonstrate significant correlations with mental health indicators. This may suggest that in non-clinical student populations, simply being aware of or listening to the body is not inherently protective unless paired with emotion regulation skills.

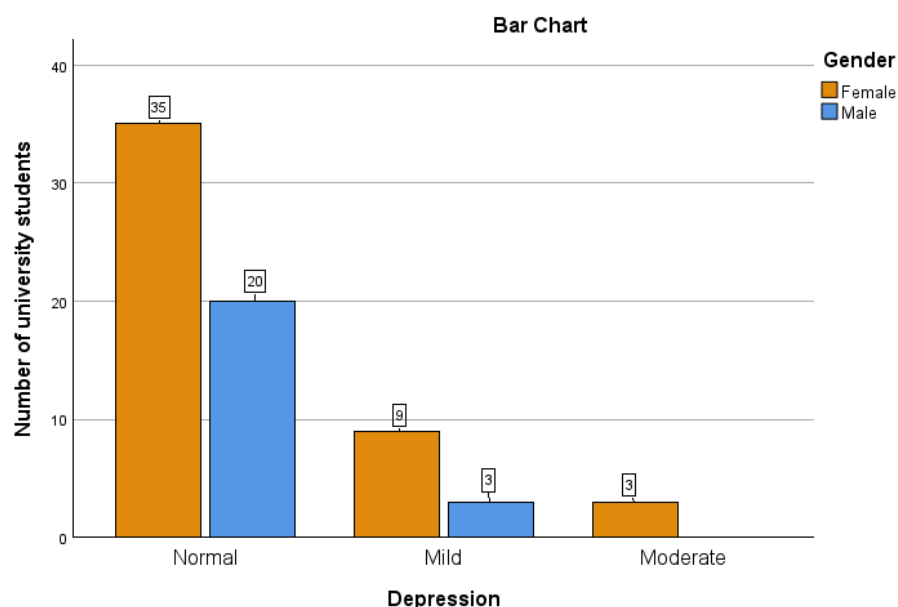
Gender Patterns

Figures 14 to 16 illustrate the distribution of depression, anxiety, and stress levels by gender. It is important to note that demographic data were only collected from participants who completed the online version of the questionnaire ($n = 70$); gender information for

in-person responses was not recorded. Consequently, this gender-based analysis represents a subset of the full sample and may not reflect the overall distribution. Within this subgroup, female students appeared to be more represented in the moderate-to-severe anxiety category. However, interpretation of this trend should be approached with caution. Given that the university has a generally higher proportion of female students and that females also made up a larger portion of the respondents in this study, any observed gender differences may be influenced by sampling bias rather than true prevalence. While existing literature does often report higher rates of psychological distress among female students (Grøtan et al., 2019), further research using balanced and comprehensive demographic data is necessary to draw reliable conclusions about gender-specific mental health trends in this context.

Figure 14: Prevalence of Depression among university students based on Gender (n=70)

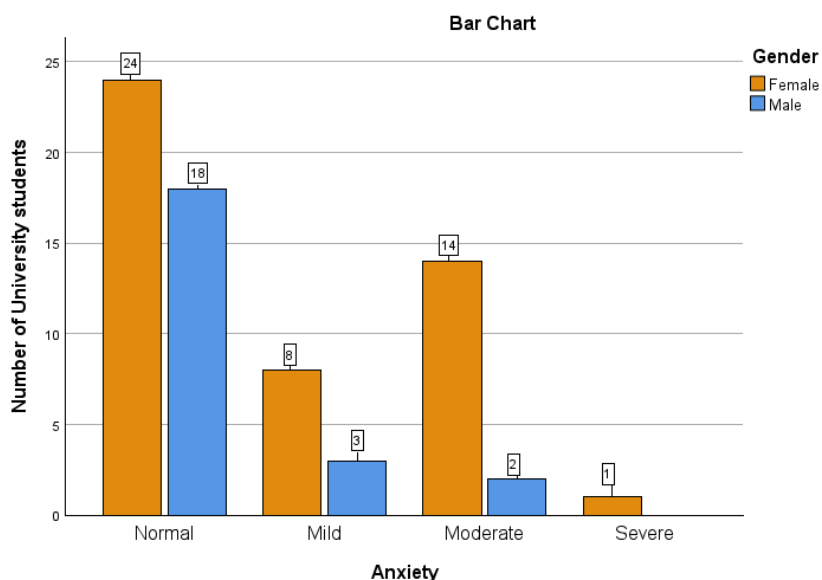
The bar chart depicting depression by gender shows that most students across both groups fall within the normal range. However, a slight increase in mild to moderate depression among female students may point to gender-specific stressors that warrant further exploration.



*Calculations were performed for 70 demographic profiles that were available

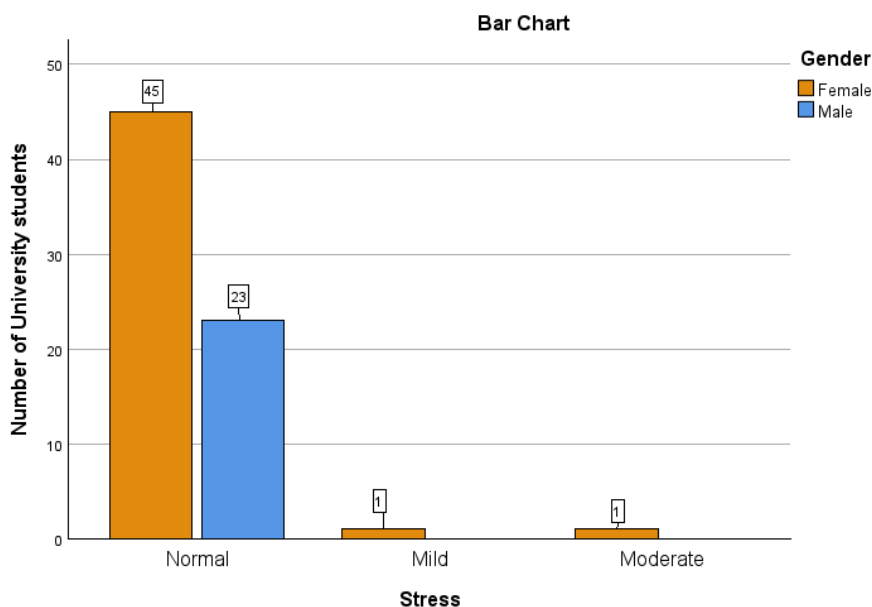
Figure 15: Prevalence of Anxiety among university students based on Gender (n=70)

Anxiety prevalence shows a more noticeable gender gap, with a larger proportion of female students falling into the moderate to severe anxiety categories. This pattern is consistent with global findings and highlights a potential area for gender-sensitive mental health interventions.



*Calculations were performed for 70 demographic profiles that were available

Figure 16: Prevalence of Stress among university students based on Gender (n=70)



*Calculations were performed for 70 demographic profiles that were available

The figure on stress distribution indicates that nearly all participants, regardless of gender, reported stress levels within the normal range. This finding suggests that, unlike anxiety, stress may not currently be a significant issue among students in this context.

Chapter 5: Conclusion

This study found that higher self-efficacy and self-regulation are associated with lower levels of depression, anxiety, and stress among UAE university students, reinforcing their role as protective psychological traits. Interoceptive awareness showed mixed associations: adaptive dimensions such as Not Worrying and Not Distracting were linked to lower anxiety, while heightened Noticing was positively associated with distress. These results suggest that how students attend to internal signals—calmly versus anxiously—can shape emotional outcomes.

From a public health standpoint, enhancing self-regulatory skills and cultivating mindful interoceptive awareness could be valuable components of campus mental health strategies. However, the cross-sectional design, limited demographic data, and single-institution sample constrain generalizability. Future research should adopt longitudinal and mixed method approaches across diverse student populations to clarify causal pathways and cultural nuances.

In summary, self-efficacy, self-regulation, and interoception are modifiable traits with relevance for promoting resilience. Culturally tailored interventions that support these psychological strengths may contribute to healthier university environments and more robust student mental well-being in the UAE.

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ANNEXURES

Annexure 1: Poster created on Canva for Study participants

Annexure 2: Google form for Data collection

11/03/2025, 12:45

Comprehending self-efficacy and interception and their effect on mental health

Comprehending self-efficacy and interception and their effect on mental health

Welcome to this survey, and thank you for your participation.

Your responses are highly valued and will contribute to meaningful research. This study aims to better understand how students think, feel, and cope with challenges. By answering a set of questionnaires, you can help contribute to important research on student well-being. This survey is completely anonymous, and no personally identifiable information will be collected. Participation is entirely voluntary, and by proceeding, you consent to the collection and processing of your responses for research and analysis purposes.

*** Indicates required question**

1. Email *

2. To link your survey response with experimental data collected at a later stage while maintaining anonymity, we require you to generate a unique code using a predefined format. This ensures data traceability during analysis without compromising your identity. *

Please follow the format below to create your unique code:

First 3 letters of an animal's name - 4 digit number - First 3 letters of a random color

Example:

Animal: Elephant

Number: 2150

Color: Green

Unique code: **Ele-2150-Gre**

Please read the instructions carefully and **store your unique code in a safe location for future reference.**

Participant's General History

3. What is your age *

4. Gender *

Mark only one oval.

- ☐ Male
- ☐ Female
- ☐ Non-binary/ Third Gender
- ☐ Prefer not to say

5. Your Academic Level *

Mark only one oval.

- ☐ Undergraduate
- ☐ Postgraduate
- ☐ Doctoral

6. Field of Study *

Mark only one oval.

- ☐ STEM (Science, Technology, Engineering, Math)
- ☐ Social Sciences
- ☐ Business and Management
- ☐ Other

7. What is your Nationality? *

Dropdown

Mark only one oval.

- ☐ Afghanistan
- ☐ Akrotiri
- ☐ Albania
- ☐ Algeria
- ☐ American Samoa
- ☐ Andorra
- ☐ Anguilla
- ☐ Antartica
- ☐ Antigua and Barbuda
- ☐ Argentina
- ☐ Armenia
- ☐ Aruba
- ☐ Ashmore and Cartier Islands
- ☐ Australia
- ☐ Austria
- ☐ Azerbaijan
- ☐ Bahrain
- ☐ Bangladesh
- ☐ Barbados
- ☐ Belarus
- ☐ Belgium
- ☐ Belize
- ☐ Benin
- ☐ Bhutan
- ☐ Bolivia
- ☐ Bosnia and Herzegovina
- ☐ Botswana
- ☐ Brazil
- ☐ Brunei
- ☐ Bulgaria

- ☐ Burkina Faso
- ☐ Burundi
- ☐ Cabo Verde
- ☐ Cambodia
- ☐ Cameroon
- ☐ Canada
- ☐ Central African Republic
- ☐ Chad
- ☐ Channel Islands
- ☐ Chile
- ☐ China
- ☐ Colombia
- ☐ Comoros
- ☐ Congo
- ☐ Costa Rica
- ☐ Côte d'Ivoire
- ☐ Croatia
- ☐ Cuba
- ☐ Cyprus
- ☐ Czech Republic
- ☐ Denmark
- ☐ Djibouti
- ☐ Dominica
- ☐ Dominican Republic
- ☐ DR Congo
- ☐ Ecuador
- ☐ Egypt
- ☐ El Salvador
- ☐ Equatorial Guinea
- ☐ Eritrea
- ☐ Estonia
- ☐ Eswatini
- ☐ Ethiopia

- ☐ Faeroe Islands
- ☐ Finland
- ☐ France
- ☐ French Guiana
- ☐ Gabon
- ☐ Gambia
- ☐ Georgia
- ☐ Germany
- ☐ Ghana
- ☐ Gibraltar
- ☐ Greece
- ☐ Grenada
- ☐ Guatemala
- ☐ Guinea
- ☐ Guinea-Bissau
- ☐ Guyana
- ☐ Haiti
- ☐ Holy See
- ☐ Honduras
- ☐ Hong Kong
- ☐ Hungary
- ☐ Iceland
- ☐ India
- ☐ Indonesia
- ☐ Iran
- ☐ Iraq
- ☐ Ireland
- ☐ Isle of Man
- ☐ Israel
- ☐ Italy
- ☐ Jamaica
- ☐ Japan
- ☐ Jordan

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Comprehending self-efficacy and interception and their effect on mental health

- ☐ Kazakhstan
- ☐ Kenya
- ☐ Kuwait
- ☐ Kyrgyzstan
- ☐ Laos
- ☐ Latvia
- ☐ Lebanon
- ☐ Lesotho
- ☐ Liberia
- ☐ Libya
- ☐ Liechtenstein
- ☐ Lithuania
- ☐ Luxembourg
- ☐ Macao
- ☐ Madagascar
- ☐ Malawi
- ☐ Malaysia
- ☐ Maldives
- ☐ Mali
- ☐ Malta
- ☐ Mauritania
- ☐ Mauritius
- ☐ Mayotte
- ☐ Mexico
- ☐ Moldova
- ☐ Monaco
- ☐ Mongolia
- ☐ Montenegro
- ☐ Morocco
- ☐ Mozambique
- ☐ Myanmar
- ☐ Namibia
- ☐ Nepal

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11/03/2025, 12:45

Comprehending self-efficacy and interception and their effect on mental health

- ☐ Netherlands
- ☐ Nicaragua
- ☐ Niger
- ☐ Nigeria
- ☐ North Korea
- ☐ North Macedonia
- ☐ Norway
- ☐ Oman
- ☐ Pakistan
- ☐ Panama
- ☐ Paraguay
- ☐ Peru
- ☐ Philippines
- ☐ Poland
- ☐ Portugal
- ☐ Qatar
- ☐ Réunion
- ☐ Romania
- ☐ Russia
- ☐ Rwanda
- ☐ Saint Helena
- ☐ Saint Kitts and Nevis
- ☐ Saint Lucia
- ☐ Saint Vincent and the Grenadines
- ☐ San Marino
- ☐ Sao Tome & Principe
- ☐ Saudi Arabia
- ☐ Senegal
- ☐ Serbia
- ☐ Seychelles
- ☐ Sierra Leone
- ☐ Singapore
- ☐ Slovakia

https://docs.google.com/forms/d/1ulsDMWq6l0P58AqeySngRK_my7Z-5-zptWEdcVfUHkk/edit

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11/03/2025, 12:45

Comprehending self-efficacy and interception and their effect on mental health

- ☐ Slovenia
- ☐ Somalia
- ☐ South Africa
- ☐ South Korea
- ☐ South Sudan
- ☐ Spain
- ☐ Sri Lanka
- ☐ State of Palestine
- ☐ Sudan
- ☐ Suriname
- ☐ Sweden
- ☐ Switzerland
- ☐ Syria
- ☐ Taiwan
- ☐ Tajikistan
- ☐ Tanzania
- ☐ Thailand
- ☐ The Bahamas
- ☐ Timor-Leste
- ☐ Togo
- ☐ Trinidad and Tobago
- ☐ Tunisia
- ☐ Turkey
- ☐ Turkmenistan
- ☐ Uganda
- ☐ Ukraine
- ☐ United Arab Emirates
- ☐ United Kingdom
- ☐ United States
- ☐ Uruguay
- ☐ Uzbekistan
- ☐ Venezuela
- ☐ Vietnam

https://docs.google.com/forms/d/1ulsDMWq6l0P58AqeySngRK_my7Z-5-zptWEdcVfUHHk/edit

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- ☐ Western Sahara
- ☐ Yemen
- ☐ Zambia
- ☐ Zimbabwe

8. What is your native language(the language you are proficient in ,not necessarily your mother tongue)?

9. Have you ever been diagnosed with diabetes? *

Mark only one oval.

- ☐ Never been diagnosed
- ☐ Yes ,I have been diagnosed with Type 1 Diabetes
- ☐ Yes, I have been diagnosed with Type 2 Diabetes

10. For those who answered "yes" in the previous question ,Please **mention the number of years since the diagnosis of diabetes**. Others can write down "NA" as a response *

11. Have you ever been diagnosed with any cardiovascular diseases *  Dropdown
?If yes, select the appropriate time since diagnosis.

Mark only one oval.

- ☐ Never
☐ Yes (0-2 yrs)
☐ Yes (2-4 yrs)
☐ Yes (4-6 yrs)
☐ Yes (More than 6 yrs)

12. Have you been particularly diagnosed with "High Blood Pressure"? f yes, select the appropriate time since diagnosis. *  Dropdown

Mark only one oval.

- ☐ Never
☐ Yes, (0 -2 yrs)
☐ Yes, (2- 4 yrs)
☐ Yes,(4-6 yrs)
☐ Yes,(more than 6 yrs)

13. Have you ever tested positive for Covid-19?If yes, then for long were you tested to be positive?  Dropdown

Mark only one oval.

- ☐ Never
☐ Yes (0 -1month)
☐ Yes (1- 6 months)
☐ Yes (12-18 months)
☐ Yes (more than 18 months)

14. Kindly select all that you have been ever diagnosed with. If nothing applies please choose "NA". *

Check all that apply.

- ☐ NA (Not Applicable)
- ☐ ADHD
- ☐ Angina
- ☐ Depression
- ☐ Epilepsy
- ☐ Kidney problems
- ☐ Migraine
- ☐ PTSD
- ☐ Schizophrenia

15. How many hours of exercise would you do in a typical week? *  Dropdown

Mark only one oval.

- ☐ Less than 1 Hr
- ☐ 1 Hr
- ☐ 2 Hrs
- ☐ 3 Hrs
- ☐ 4 Hrs
- ☐ 5 Hrs
- ☐ 6 Hrs
- ☐ 7 Hrs
- ☐ 8 Hrs
- ☐ 9 Hrs
- ☐ 10 Hrs
- ☐ More than 10 Hrs
- ☐ No Exercise at all

16. What is the average intensity of your exercise? *

Mark only one oval.

☐ Low

☐ Moderate

☐ High

Important Notice!

Throughout this questionnaire, if you find any question unclear or confusing, **kindly leave the question empty.**

Depression, Anxiety and Stress Scale

Below are statements about feelings and thoughts you may have experienced in the past week. Please indicate how much each statement applies to you using the following scale:

0 = Did not apply to me at all

1 = Applied to me to some degree, or some of the time

2 = Applied to me to a considerable degree, or a good part of the time

3 = Applied to me very much, or most of the time

17. **1. I found it hard to wind down**

0 = Did not apply to me at all

1 = Applied to me to some degree, or some of the time

2 = Applied to me to a considerable degree, or a good part of the time

3 = Applied to me very much, or most of the time

Mark only one oval.

☐ 0

☐ 1

☐ 2

☐ 3

18. **2. I was aware of dryness of my mouth**

0 = Did not apply to me at all

1 = Applied to me to some degree, or some of the time

2 = Applied to me to a considerable degree, or a good part of the time

3 = Applied to me very much, or most of the time

Mark only one oval.☐ 0☐ 1☐ 2☐ 319. **3. I couldn't seem to experience any positive feeling at all**

0 = Did not apply to me at all

1 = Applied to me to some degree, or some of the time

2 = Applied to me to a considerable degree, or a good part of the time

3 = Applied to me very much, or most of the time

Mark only one oval.☐ 0☐ 1☐ 2☐ 3

20. **4. I experienced breathing difficulty (e.g., excessively rapid breathing, breathlessness in the absence of physical exertion).**

0 = Did not apply to me at all

1 = Applied to me to some degree

2 = Applied to me to a considerable degree

3 = Applied to me very much

Mark only one oval.

☐ 0

☐ 1

☐ 2

☐ 3

21. **5. I found it difficult to work up the initiative to do things.**

0 = Did not apply to me at all

1 = Applied to me to some degree

2 = Applied to me to a considerable degree

3 = Applied to me very much

Mark only one oval.

☐ 0

☐ 1

☐ 2

☐ 3

22. **6. I tended to over-react to situations.**

0 = Did not apply to me at all

1 = Applied to me to some degree

2 = Applied to me to a considerable degree

3 = Applied to me very much

Mark only one oval.☐ 0☐ 1☐ 2☐ 323. **7. I experienced trembling (e.g., in the hands)**

0 = Did not apply to me at all

1 = Applied to me to some degree

2 = Applied to me to a considerable degree

3 = Applied to me very much

Mark only one oval.☐ 0☐ 1☐ 2☐ 3

24. **8. I felt that I was using a lot of nervous energy.**

0= Did not apply to me at all

1 = Applied to me to some degree

2 = Applied to me to a considerable degree

3 = Applied to me very much

Mark only one oval.☐ 0☐ 1☐ 2☐ 325. **9. I was worried about situations in which I might panic and make a fool of myself.**

0= Did not apply to me at all

1 = Applied to me to some degree

2 = Applied to me to a considerable degree

3 = Applied to me very much

Mark only one oval.☐ 0☐ 1☐ 2☐ 3

26. **10. I felt that I had nothing to look forward to**

0 = Did not apply to me at all

1 = Applied to me to some degree

2 = Applied to me to a considerable degree

3 = Applied to me very much

Mark only one oval.☐ 0☐ 1☐ 2☐ 327. **11. I found myself getting agitated**

0 = Did not apply to me at all

1 = Applied to me to some degree

2 = Applied to me to a considerable degree

3 = Applied to me very much

Mark only one oval.☐ 0☐ 1☐ 2☐ 3

28. **12. I found it difficult to relax.**

0 = Did not apply to me at all

1 = Applied to me to some degree

2 = Applied to me to a considerable degree

3 = Applied to me very much

Mark only one oval.☐ 0☐ 1☐ 2☐ 329. **13. I felt down-hearted and blue.**

0 = Did not apply to me at all

1 = Applied to me to some degree

2 = Applied to me to a considerable degree

3 = Applied to me very much

Mark only one oval.☐ 0☐ 1☐ 2☐ 3

30. **14. I was intolerant of anything that kept me from getting on with what I was doing.**

0 = Did not apply to me at all

1 = Applied to me to some degree

2 = Applied to me to a considerable degree

3 = Applied to me very much

Mark only one oval.

☐ 0

☐ 1

☐ 2

☐ 3

31. **15. I felt I was close to panic**

0 = Did not apply to me at all

1 = Applied to me to some degree

2 = Applied to me to a considerable degree

3 = Applied to me very much

Mark only one oval.

☐ 0

☐ 1

☐ 2

☐ 3

32. **16. I was unable to become enthusiastic about anything.**

0 = Did not apply to me at all

1 = Applied to me to some degree

2 = Applied to me to a considerable degree

3 = Applied to me very much

Mark only one oval.☐ 0☐ 1☐ 2☐ 333. **17. I felt I wasn't worth much as a person.**

0 = Did not apply to me at all

1 = Applied to me to some degree

2 = Applied to me to a considerable degree

3 = Applied to me very much

Mark only one oval.☐ 0☐ 1☐ 2☐ 3

34. **18. I felt that I was rather touchy.**

0 = Did not apply to me at all

1 = Applied to me to some degree

2 = Applied to me to a considerable degree

3 = Applied to me very much

Mark only one oval.☐ 0☐ 1☐ 2☐ 335. **19. I was aware of the action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat).**

0 = Did not apply to me at all

1 = Applied to me to some degree

2 = Applied to me to a considerable degree

3 = Applied to me very much

Mark only one oval.☐ 0☐ 1☐ 2☐ 3

36. **20. I felt scared without any good reason.**

0 = Did not apply to me at all

1 = Applied to me to some degree

2 = Applied to me to a considerable degree

3 = Applied to me very much

Mark only one oval.☐ 0☐ 1☐ 2☐ 337. **21. I felt that life was meaningless.**

0 = Did not apply to me at all

1 = Applied to me to some degree

2 = Applied to me to a considerable degree

3 = Applied to me very much

Mark only one oval.☐ 0☐ 1☐ 2☐ 3**Short Form Self Regulation Questionnaire (SSRQ)**

Please answer the following questions by clicking on the response that best describes how you are. Remember, there are no right or wrong answers.

38. **1. I usually keep track of my progress towards my goals.**

- 1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

39. **2. I have trouble making up my mind about things.**

- 1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

40. **3. I get easily distracted from my plans.**

- 1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

41. **4. I don't notice the effects of my actions until it is too late.**

- 1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

42. **5. I am able to accomplish goals I set for myself.**

- 1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

43. **6. I put off making decisions.**

- 1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

44. **7. It's hard for me to notice when I've "had enough" (alcohol, food, sweets).**

- 1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

45. **8. If I wanted to change, I am confident that I could do it.**

- 1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

46. **9. When it comes to deciding about a change, I feel overwhelmed by the choices.**

1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

47. **10. I have trouble following through with things once I've made up my mind to do something.**

1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

48. **11. I don't seem to learn from my mistakes.**

- 1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

49. **12. I can stick to a plan that's working well.**

- 1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

50. **13. I usually only have to make a mistake one time in order to learn from it.**

1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

51. **14. I have personal standards, and try to live up to them.**

1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

52. **15. As soon as I see a problem or challenge, I start looking for all possible solutions.**

1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

53. **16. I have a hard time setting goals for myself.**

1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

54. **17. I have a lot of willpower.**

- 1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

55. **18. When I'm trying to change something, I pay a lot of attention to how I'm doing.**

- 1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

56. **19. I have trouble making plans to help me reach my goals.**

- 1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

57. **20. I am able to resist temptation.**

- 1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

58. **21. I set goals for myself and keep track of my progress.**

- 1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

59. **22. Most of the time I don't pay attention to what I'm doing.**

- 1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

60. **23. I tend to keep doing the same thing, even when it doesn't work.**

- 1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

61. **24. I can usually find several different possibilities when I want to change something.**

- 1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

62. **25. Once I have a goal, I can usually plan how to reach it.**

- 1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

63. **26. If I make a resolution to change something, I pay a lot of attention to how I'm doing.**

- 1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

64. **27. Often I don't notice what I'm doing until someone calls it to my attention.**

- 1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

65. **28. I usually think before I act.**

- 1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

66. **29. I learn from my mistakes.**

- 1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

67. **30. I know how I want to be.**

- 1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

68. **31. I give up quickly.**

- 1= Strongly Disagree
2=Disagree
3=Uncertain or Unsure
4=Agree
5=Strongly Agree

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

General Self-Efficacy Scale (GSE)

This scale is a self-report measure of self-efficacy. Scoring for the questions range from Not at all true =1 to Exactly true =4. The total score is calculated by finding the sum of the all items. For the GSE, the total score ranges between 10 and 40, with a higher score indicating more self-efficacy.

69. **1. I can always manage to solve difficult problems if I try hard enough**

- Not at all true=1
Hardly true= 2
Moderately true =3
Exactly true= 4

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4

70. **2. If someone opposes me, I can find the means and ways to get what I want.**

Not at all true=1

Hardly true= 2

Moderately true =3

Exactly true= 4

Mark only one oval.☐ 1☐ 2☐ 3☐ 471. **3. It is easy for me to stick to my aims and accomplish my goals.**

Not at all true=1

Hardly true= 2

Moderately true =3

Exactly true= 4

Mark only one oval.☐ 1☐ 2☐ 3☐ 4

72. **4. I am confident that I could deal efficiently with unexpected events.**

Not at all true=1

Hardly true= 2

Moderately true =3

Exactly true= 4

Mark only one oval.☐ 1☐ 2☐ 3☐ 473. **5. Thanks to my resourcefulness, I know how to handle unforeseen situations.**

Not at all true=1

Hardly true= 2

Moderately true =3

Exactly true= 4

Mark only one oval.☐ 1☐ 2☐ 3☐ 4

74. **6. I can solve most problems if I invest the necessary effort.**

Not at all true=1

Hardly true= 2

Moderately true =3

Exactly true= 4

Mark only one oval.☐ 1☐ 2☐ 3☐ 475. **7. I can remain calm when facing difficulties because I can rely on my coping abilities.**

Not at all true=1

Hardly true= 2

Moderately true =3

Exactly true= 4

Mark only one oval.☐ 1☐ 2☐ 3☐ 4

76. **8. When I am confronted with a problem, I can usually find several solutions.**

Not at all true=1

Hardly true= 2

Moderately true =3

Exactly true= 4

Mark only one oval.☐ 1☐ 2☐ 3☐ 477. **9. If I am in trouble, I can usually think of a solution**

Not at all true=1

Hardly true= 2

Moderately true =3

Exactly true= 4

Mark only one oval.☐ 1☐ 2☐ 3☐ 4

78. **10. I can usually handle whatever comes my way.**

Not at all true=1

Hardly true= 2

Moderately true =3

Exactly true= 4

Mark only one oval.☐ 1☐ 2☐ 3☐ 4**Multidimensional Assessment of Interoceptive Awareness (MAIA) 2**

Below you will find a list of statements. Please indicate how often each statement applies to you generally in daily life. Choose one number between 0 to 5 to answer each question, where 0=Never and 5=Always .

79. **1. When I am tense I notice where the tension is located in my body.***Mark only one oval.*☐ 0☐ 1☐ 2☐ 3☐ 4☐ 5

80. **2. I notice when I am uncomfortable in my body.**

Mark only one oval.

☐ 0

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5

81. **3. I notice where in my body I am comfortable.**

Mark only one oval.

☐ 0

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5

82. **4. I notice changes in my breathing, such as whether it slows down or speeds up.**

Mark only one oval.

☐ 0

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5

83. **5. I ignore physical tension or discomfort until they become more severe.**

Mark only one oval.

☐ 0

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5

84. **6. I distract myself from sensations of discomfort.**

Mark only one oval.

☐ 0

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5

85. **7. When I feel pain or discomfort, I try to power through it.**

Mark only one oval.

☐ 0

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5

86. **8. I try to ignore pain***Mark only one oval.*☐ 0☐ 1☐ 2☐ 3☐ 4☐ 587. **9. I push feelings of discomfort away by focusing on something***Mark only one oval.*☐ 0☐ 1☐ 2☐ 3☐ 4☐ 588. **10. When I feel unpleasant body sensations, I occupy myself with something else so I don't have to feel them.***Mark only one oval.*☐ 0☐ 1☐ 2☐ 3☐ 4☐ 5

89. **11. When I feel physical pain, I become upset.**

Mark only one oval.

☐ 0

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5

90. **12. I start to worry that something is wrong if I feel any discomfort.**

Mark only one oval.

☐ 0

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5

91. **13. I can notice an unpleasant body sensation without worrying about it.**

Mark only one oval.

☐ 0

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5

92. **14. I can stay calm and not worry when I have feelings of discomfort or pain.**

Mark only one oval.

- ☐ 0
☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

93. **15. When I am in discomfort or pain I can't get it out of my mind**

Mark only one oval.

- ☐ 0
☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

94. **16. I can pay attention to my breath without being distracted by things happening around me.**

Mark only one oval.

- ☐ 0
☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

95. **17. I can maintain awareness of my inner bodily sensations even when there is a lot going on around me.**

Mark only one oval.

- ☐ 0
☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

96. **18. When I am in conversation with someone, I can pay attention to my posture.**

Mark only one oval.

- ☐ 0
☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

97. **19. I can return awareness to my body if I am distracted.**

Mark only one oval.

- ☐ 0
☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

98. **20. I can refocus my attention from thinking to sensing my body.**

Mark only one oval.

☐ 0

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5

99. **21. I can maintain awareness of my whole body even when a part of me is in pain or discomfort.**

Mark only one oval.

☐ 0

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5

100. **22. I am able to consciously focus on my body as a whole.**

Mark only one oval.

☐ 0

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5

101. **23. I notice how my body changes when I am angry.**

Mark only one oval.

- ☐ 0
☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

102. **24. When something is wrong in my life I can feel it in my body.**

Mark only one oval.

- ☐ 0
☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

103. **25. I notice that my body feels different after a peaceful experience.**

Mark only one oval.

- ☐ 0
☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

104. **26. I notice that my breathing becomes free and easy when I feel comfortable.**

Mark only one oval.

- ☐ 0
☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

105. **27. I notice how my body changes when I feel happy / joyful.**

Mark only one oval.

- ☐ 0
☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

106. **28. When I feel overwhelmed I can find a calm place inside.**

Mark only one oval.

- ☐ 0
☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

107. **29. When I bring awareness to my body I feel a sense of calm.**

Mark only one oval.

- ☐ 0
☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

108. **30. I can use my breath to reduce tension.**

Mark only one oval.

- ☐ 0
☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

109. **31. When I am caught up in thoughts, I can calm my mind by focusing on my body/breathing.**

Mark only one oval.

- ☐ 0
☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

110. **32. I listen for information from my body about my emotional state.**

Mark only one oval.

- ☐ 0
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5

111. **33. When I am upset, I take time to explore how my body feels.**

Mark only one oval.

- ☐ 0
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5

112. **34. I listen to my body to inform me about what to do.**

Mark only one oval.

- ☐ 0
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5

113. **35. I am at home in my body.**

Mark only one oval.

- ☐ 0
☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

114. **36. I feel my body is a safe place.**

Mark only one oval.

- ☐ 0
☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

115. **37. I trust my body sensations.**

Mark only one oval.

- ☐ 0
☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

Thank you for your patience in completing this form!

We appreciate you time and effort in contributing to this study .By answering the above set of questionnaires, you are contributing to important research on student well-being.

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