Promoting Psychological Well-being Among College Students Through Structured Mental Health Education

Miaomiao Xu[1*], Ooi Boon Keat[2]

[1*]Innovation and Entrepreneurship College, Anhui Xinhua University, Hefei, Anhui, China.

[2]Management& Science University(MSU), Shah Alam, Selangor, Malaysia.

[*]**Corresponding Author:** Miaomiao Xu, Mail Id: miaomiaoxu481@gmail.com; 19159138911@163.com

HOW TO CITE:
Miaomiao Xu, Ooi Boon Keat (2026). Promoting Psychological Well-being Among College Students Through Structured Mental Health Education. International Journal of Special Education, 41(4s), 667-688.

COPYRIGHT STATEMENT:
Copyright: © 2026 Authors. Open access publication underthe terms and conditions of the Creative CommonsAttribution (CC BY) license (http://creativecommons.org/licenses/by/4.0/).

ABSTRACT:
College students' mental health has been deteriorating due to a combination of social pressures, developmental transitions, and rising academic demands. Many students refrain from seeking assistance despite the availability of support programs because of stigma, misunderstandings, and ignorance of mental health resources. The possible advantages of all-encompassing mental health programs for college students' wellbeing were investigated in this study. 320 students were recruited from four educational institutions using a multifaceted strategy. Interpersonal skills, emotion control, stress management, and mindfulness were all covered in the eight-week intervention program. Both before and after the intervention, researchers gave the General Health Questionnaire (GHQ-12) and the Psychological Well-Being Scale (PWB). The findings showed that the participants' sense of purpose in life, self-acceptance, and symptoms of depression and anxiety had significantly improved ($p < .001$). Qualitative responses showed a decrease in stigma around mental health and an increase in awareness. The results imply that organised mental health education helps youth by proactively averting issues and enhancing emotional fortitude and resilience.In order to create more stimulating and healthy learning environments, these findings support the inclusion of comprehensive mental health initiatives in university curricula. The study shows that systematic mental health programming can support academic success and psychological well-being while successfully addressing the increasing mental health issues college students face.

Keywords: Psychological well-being, College students, Mental health education, Stress management, Emotional resilience.

1. Introduction

A growing number of college students are experiencing symptoms of stress-related disorders, including anxiety, depression, emotional tiredness, and other similar conditions. Many things change about a person when they go to college, including how well they do in school, how well they get along with other people, how much money they have, and who they are [1-2]. Moreover, they have a great deal of work to do to prepare themselves for their future careers, but they often lack sufficient time to complete all of it. These changes can be complex for pupils to deal with emotionally and mentally. Some students can find healthy methods to cope with these issues, but there are many more who suffer in silence because they do not have support

networks, they do not know much about mental health, or they are afraid of being judged for having a mental illness [3-4].

As stated by the Global Health Organisation, one out of every five college students throughout the globe has some mental health disorder, namely anxiety or depression. According to the World Health Organisation, this is the most common mental health problem that they experience [5]. Since other individuals either did not comprehend the situation or did not choose to discuss it, a significant number of young people were unable to get the necessary assistance for their emotional issues. Despite these developments being cause for concern, the majority of schools continue to prioritize the academic achievement of their students over their mental and emotional well-being [6-7].

1.1 Problem Definition and Significance

The primary issue that this research endeavours to address is the fact that college students are not psychologically prepared to cope with issues related to their mental health. However, even though counselling clinics and other traditional mental health support services are quite significant, many people do not make sufficient use of them and only do so when things become complicated [8-9]. Furthermore, education on mental health is not often one of the first subjects taught in schools. Due to the lack of preventative mental health frameworks that are available to help students, there is a possibility that they can experience physical and psychological suffering [10-11].

By finding a solution to this problem, it will be able to enhance the quality of the academic environment and raise the performance expectations for each person. Excellent mental health can be identified by several indicators, including improved cognitive function, stronger social connections, and increased overall well-being [12]. Through the incorporation of mental health education into their course offerings, educational institutions such as colleges and universities have the potential to contribute to the mainstreaming of mental health assistance, reduce stigma, and teach students how to manage stress and regulate their emotions for the rest of their lives [13].

1.2 Motivation and Research Gaps

There is a lack of data about curriculum-based interventions that are intended to educate and empower students in the management of their mental health, even though previous research has shown the significance of mental health services offered by universities. Either the majority of remedies are therapeutic, they are only used when it is essential, or they are inadequate for broad application [14]. Additionally, there is a lack of research that combines qualitative and quantitative approaches to evaluate mental health education programs implemented in actual classroom settings. Over time, these efforts do not provide any information on how students feel about stigma, peer support, or mental health [15].

To address this deficiency, the purpose of this work is to develop and evaluate a structured mental health education curriculum specifically designed for implementation in college environments. The primary objective of this research is to demonstrate, through the use of empirical data, that educational initiatives grounded in theory and practice have the potential to enhance mental health literacy, reduce stigma, and foster emotional intelligence.

1.3 Key Contributions

- ⇨ This study provides a comprehensive module that can be used for teaching mental health to undergraduate students. The objective of the programme is to teach students how to manage different types of stress, interact effectively with others, be aware of their surroundings, and control their emotions.
- ⇨ By using quantitative pre- and post-assessments in conjunction with qualitative feedback, the research provides persuasive evidence that the curriculum has a dramatic impact on mental health, alleviating feelings of worry and melancholy.

- ⇨ To enhance students' mental health and resilience in various classroom settings, educational institutions can utilize the strategies introduced in the research, which can be applied and further developed to support this goal.
- ⇨ This research contributes to the expanding conversation on preventative mental health care in higher education by providing a solution that is both evidence-based and pragmatic to a substantial problem within the field.

Here is how the study is set up: Section 2 speaks about the current approaches and their limitations. Section 3 tells about the proposed work, dataset and setup. Section 4 talks about the analysis and outcomes of the proposed work. Section 5 talks about the conclusion of the paper and what has to be done in the future.

2. Literature survey

The research [16] aims to examine the potential benefits of physical exercise on the mental health of teenagers, with a particular emphasis on college students. This study evaluates the project's concept, idea, and multimethod approach while simultaneously assessing the latest scientific facts, healthcare requirements, and prospective advancements. This includes the first findings from earlier studies. The findings of this research suggest a correlation between exercise, mental health, and overall well-being. This article briefly summarises such outcomes. A significant segment of the increasing adult demographic consists of current college students.

The purpose of this investigation [17] on the mental health of management majors is to analyse the relationship among these four support sources. Academic pursuits are one thing that helps to balance this relationship. Researchers utilised structural equation modelling and hierarchical regression on data gathered from 309 management students at Indian institutions to determine that students' psychological well-being was positively correlated with a supportive internal team environment and support from both their families and institutions. Based on these results, it has some ideas on how schools can support children's mental health.

Two separate cross-sectional populations were used in this descriptive comparative study [18]. Undergraduates from diverse backgrounds in the Philippines were invited to participate in this program. The data were analyzed using descriptive statistics and structural equation modeling (SEM) after being acquired anonymously through online surveys. The research demonstrated that the harmful triad component of PWB was strongly predicted by both perceived stress and resilience. There must have been a causal link between the variables if the results from both samples are concordant.

Participants in this cross-sectional research [19] used validated tools to describe their levels of anxiety, depression, stress, mental health, and academic satisfaction. The studies were conducted using descriptive statistics and hierarchical regression analysis. This research, conducted in Geneva, Switzerland, aimed to investigate eight distinct health-related courses and explore students' mental health, distress levels, and the variables that contribute to these factors. Depression, worry, and tension were more common among students whose academic satisfaction was poor, while students whose satisfaction was high reported improved psychological health. Anxiety, stress, sadness, and other mental health issues are strongly correlated with academic happiness or lack thereof.

The research [20] used an explanatory sequential mixed-method approach to test the hypothesis that positive emotions and psychological health influence the relationships between self-compassion, mindfulness, stress, and self-esteem. Applying SPSS 22.0 and AMOS 24.0, it evaluated quantitative data derived from a two-wave survey of 654 students from Vietnam. With this information, the researchers are able to test the theories. Positive feelings and mental health completely buffered the associations between self-compassion, mindfulness, stress, and self-esteem, as shown in the study.

Here, the research [21] introduced a robotic coach that can help college students with group

therapy and other practical skills. The study into the potential for robotic intervention in on-campus housing revealed significant improvements in students' mental health, disposition, and desire to make positive lifestyle changes. Based on the findings of the feasibility study, an AI agent can learn user characteristics and recognize behavioral signs to provide more tailored intervention experiences, thereby improving mental health outcomes.

Examining the relationship between exercise-induced changes in body image and psychological well-being was the driving force for this research [22]. Throughout the two cycles of this research, 189 students from Seoul, Korea, participated. After determining the amount of change for each variable, the regression scores were used for correlation and structural model analysis. Exercising to change one's view of their physical self can have two potential benefits: improving mental health and increasing self-esteem.

Finding out how widespread mental health issues are and what variables contribute to their prevalence among college-aged women in metropolitan Bangladesh was the primary goal of the current research [23]. Online surveys were administered to 451 female college students for this cross-sectional research. Here, it tallied the frequency with which individuals had symptoms of prevalent mental health issues. Among female college students in Dhaka, Bangladesh, variables that can have a role in the development of mental health issues include marital status, socioeconomic position, educational achievement, and family structure (nuclear/joint).

Analyses employing structural equation modeling indicated that students' views of social support from professors in the autumn of [24] were predictive of reduced rates of loneliness and greater feelings of belonging the following spring. However, students' better feelings of belonging the following spring were predicted by their views of social support from domestic students in the autumn. A year-long research project included 126 overseas students from two separate American colleges. The correlation between faculty social support and mental health was impacted by loneliness. The most important thing that these new results show is that domestic student and teacher social support is essential for international students' social and emotional integration.

The randomised controlled trial [25] included 220 students, according to official documents from India's Clinical Trials Registry. The short resilience intervention course, grounded in positive psychology, consists of two sessions spaced two weeks apart. Examining shifts in PHQ-4, PTSD-I, and BRCS (Brief Resilient Coping Scale) scores allowed researchers to track results. At the one-month follow-up, the groups that received the short resilience intervention had somewhat higher mean BRCS scores than the groups that received the resilience self-help booklets.

According to the dual continuum paradigm [26], there are two parts to mental health—psychological wellbeing and psychological distress—that are separate yet connected. It employed experience sampling to gather a plethora of longitudinal data. The research included fifteen college students (mean age = 23.50, 56% female) who completed a baseline questionnaire and subsequently took short assessments of their mental health three times a day for two weeks. When studying the interplay between mental health and psychological discomfort, researchers discovered a very unfavourable inter-person correlation. The results of this investigation will help prove that this popular paradigm is applicable everywhere.

3. Methodology

The present study aims to enhance psychological well-being through a proactive and preventive approach, utilizing an innovative framework in structured mental health education. This is because more and more college students are having mental health problems. In this environment, students get responsive counselling services and cultivate the emotional and cognitive competencies necessary for stress management, resilience enhancement, and self-awareness improvement. Four well-known psychological

theories are the basis for the methodology: Cognitive Behavioural Theory (CBT), which tries to change destructive thought patterns; Mindfulness-Based Stress Reduction (MSR), which focuses on being aware of the present moment and controlling emotions; and Positive Psychology, which stresses the importance of personal strengths and well-being, as shown in Figure 1. The Psychoeducation Modules (PM) program encompasses a wide range of topics, including emotional literacy, cognitive distortions, and mental health awareness. People who participate in an emotional regulation training program (ERT) learn how to recognize their feelings, reevaluate their thoughts, and develop tolerance. The Mindfulness and Stress Reduction (MSR) program teaches people how to do breathing exercises, guided meditation, and progressive relaxation. The Peer Communication and Support (PCS) program aims to help students become more confident, caring, and effective listeners by having them work together on projects.

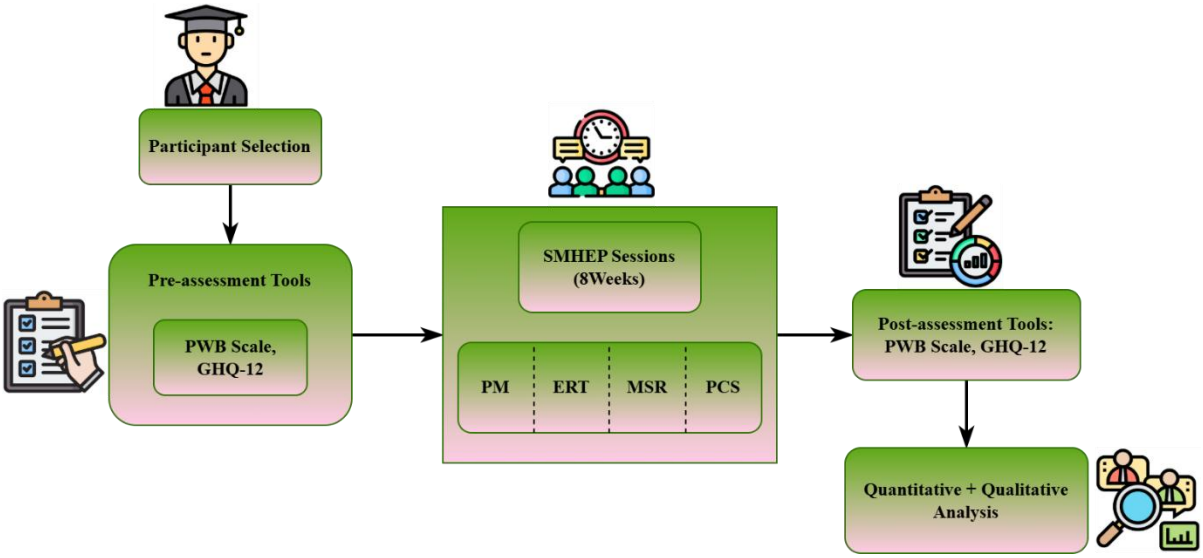

Figure 1. Proposed model

The plan includes eight weeks of enjoyable lessons that are beneficial for the students' minds. Each session addresses a distinct topic, including strategies for managing stress, effective communication, and exploring mental health. The study used a mixed-methods approach to evaluate the program's effectiveness, combining standardised psychological tests with thematic qualitative analysis. This comprehensive method monitors students' mental health in every possible way, encompassing their thoughts and behaviors. Researchers are exploring ways for schools to support children with mental health issues and foster supportive communities, which many schools can adopt.

3.1 Participant Enrolment and Pre-Screening:

The Participant Enrolment & Pre-Screening module is the first step for anyone who wants to join the Structured Mental Health Education Programme (SMHEP). The primary audience is young people who require mental health treatment; thus, it's imperative to discover and involve them at every stage. The first step is to hire personnel, as shown in Figure 2. Most of the time, this is done on campus via email, online posters, and announcements given in class. All prospective students are required to attend an orientation session, where they will learn about the program's goals, requirements, and expected outcomes.

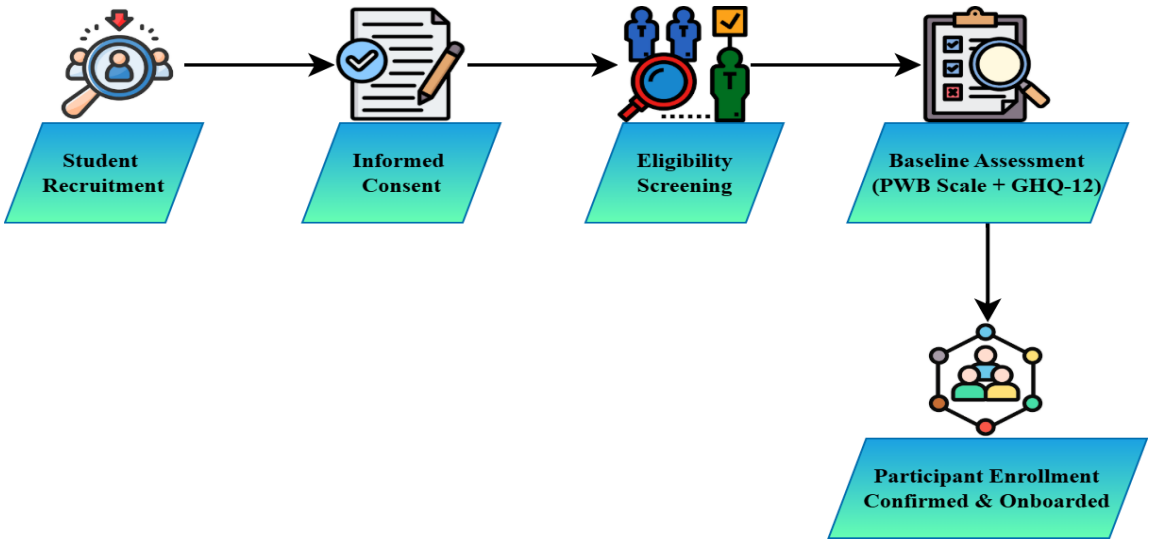

Figure 2. Evidence-based Pre-screening mechanism

The next stage is to administer an eligibility test to students who show interest. To apply, one must be a full-time student between the ages of 18 and 25 and be ready to give the programme their complete attention for all eight weeks. Getting everyone's informed permission is a good method to remain on the right side of the moral line. At this point, it ensures that the person has provided informed consent by explaining how it will protect their privacy and the privacy of their test results.

The next stage in designing an effective intervention and monitoring its long-term effects is to administer a baseline mental health assessment. The most popular tools are these two, which are given in Table 1:

Table 1. Tools used in the Pre-screening assessment

Tool Name	Purpose	Domains Measured	Scoring Range
Ryff's PWB Scale	Evaluate multidimensional psychological well-being	Independence, proficiency, development, connections, meaning, self-acceptance	Varies by version (e.g., 18–108 for 18-item version)
GHQ-12	Check for general mental health issues	Anxiety, despair, and problems with socializing	0–12 (Likert or binary scoring)

3.1.1 Ryff Health Assessment (PWB) for Mental Health:

This comprehensive examination examines all six aspects of happiness: autonomy, control over the environment, personal growth, healthy relationships, life purpose, and self-acceptance. With its aid, it could be easier to identify each student's strengths and weaknesses.

3.1.2 The GHQ-12 is one of these tools for monitoring health. It asks twelve questions:

The GHQ-12 assesses the patient's overall mental health and their level of discomfort in the short term during a mental health assessment. Researchers in mental health often use it to identify social difficulties, anxiety, and depression at an early stage. A psychological baseline profile is created for each person based on their findings. This profile is crucial for monitoring the effectiveness of the intervention. This strategy

makes the programme more reliable and valid by allowing only those who are most likely to benefit and excluding those who aren't.

3.2. Weekly Structured Educational Modules

The Weekly Structured Educational Modules, an 8-week curriculum, provide individuals with the necessary knowledge about mental health, as illustrated in Figure 3. The primary purpose of the students is to attend a 90-minute session once a week that combines psychoeducation, mindfulness methods, cognitive-behavioral therapy (CBT), and time with their peers. This model incorporates essential aspects of mental health, enabling students to comprehend the material and apply it in their daily lives. The Ryff Psychological Well-being model serves as the basis for these sessions. It organizes difficulties so that significant areas of mental health can be addressed one at a time.

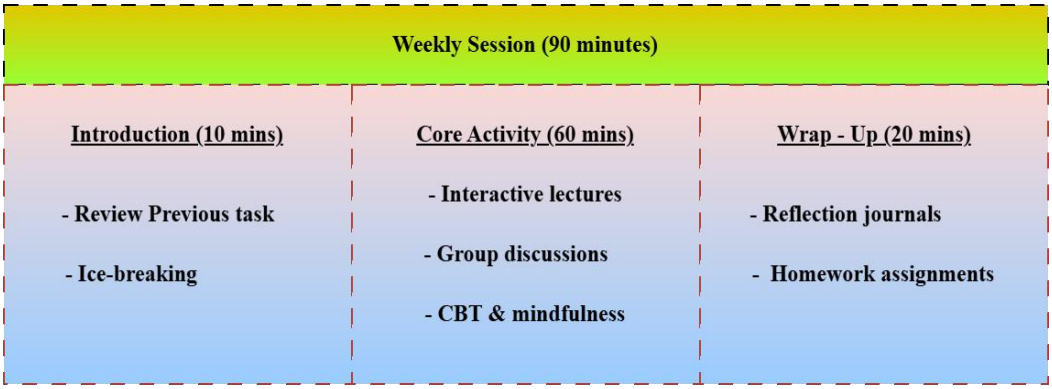

Figure 3. Weekly Session structure

The basic aims of psychoeducation are to assist people learn how to deal with their emotions, handle the stress of school, and be mentally healthy. This portion helps fight stigma by teaching youngsters how to handle their feelings and shows them that they can take care of their mental health. The primary objectives of cognitive-behavioral therapy (CBT) are to help individuals learn how to address challenges, manage their emotions, and modify their thought patterns in response to adverse events. The course's activities are designed to teach students how to employ adaptive coping methods by having them create routines, set objectives, and record their thoughts in a diary.

Students learn various ways to become more aware through awareness activities. Some of them include body scans, guided meditations, breathing exercises, and gratitude diaries. All of these tips—staying focused on the present, minimising anxiety, and enhancing concentration—are very helpful when education is hard.

People are more likely to feel like they belong and that they are being heard when they engage in helpful conversations with one another. Participants are encouraged to engage in activities such as role-playing, group discussions, and collaborative work to enhance their empathy, social skills, and understanding of others. These traits are essential for making people feel less alone. The purpose of each session is to build upon what is learned previously by delving deeper into specific aspects of psychology. There could be discussions on topics such as self-acceptance, taking control of their surroundings, and achieving independence, as shown in Table 2. The programme is structured such that the first three weeks focus on "Self-Awareness and Emotional Literacy," the fourth week on "Resilience and Stress Tolerance," and the seventh week on "Purpose in Life and Goal Alignment."

Table 2. Weekly module breakdown

Week	Theme	Core Component Emphasis	Target PWB Domain
1	Being aware of themselves and their emotions	Relaxation + Psychological education	Accepting Oneself
2	The patterns of Conversation and Mental Sorts	CBT	Independence
3	Skills for talking to people and getting along with them	Peer Collaboration	Good Relationships
4	Stress Tolerance and Resilience	Awareness and CBT	Mastery of the Environment
5	Being kind to yourself and being aware of their body	Being aware	Accepting Oneself
6	Finding a purpose in life and setting goals that are in line with that purpose	CBT	Independence
7	Integration and the Future Mental Hygiene	Psychological training + Peer Reflection	a sense of purpose in life
8	Integration and Future Mental Hygiene	All elements (Review + Planning)	personal development

One can learn, manage their emotions, and adjust their behavior simultaneously using this modular strategy. These weekly classes teach students how to develop mental strength, improve their social skills, and manage their behavior through a combination of theory, practical exercises, and guidance from their classmates. The courses are organized, but they can also be modified, which keeps the evidence-based curriculum moving forward. This enables facilitators to adapt the group discussions to meet the needs of the group members. Over time, engaging in activities has a demonstrable positive effect on how people perceive their mental health and overall sense of well-being.

3.3 Well-being monitoring and Evaluation Engine

Throughout the semester, the Well-being Monitoring & Evaluation Engine, developed by the SMHEP, continuously monitors the mental health of participants, providing valuable data for further analysis. Through the use of stringent and evidence-based evaluation techniques, this section ensures that the intervention is implemented effectively and yields definitive results. Regular self-reflection, self-reporting both before and after each session, and standardised psychometric exams all offer us quantitative and qualitative data that it can use to continue reviewing.

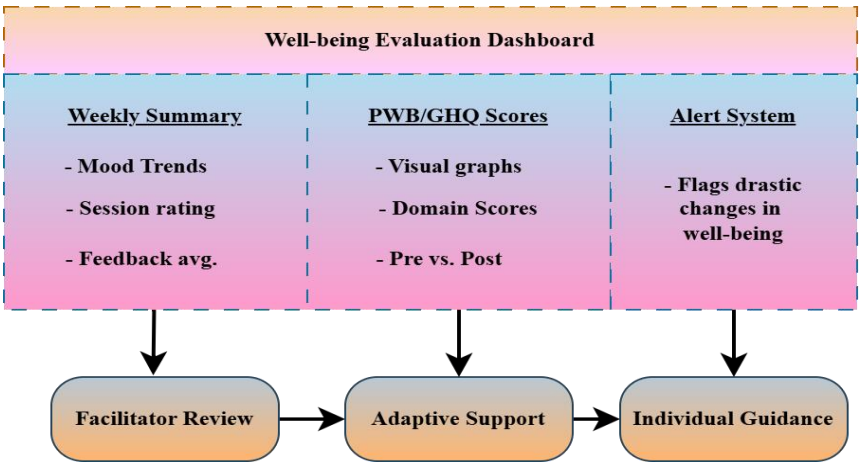

Figure 4. Features of the Monitoring dashboard

Before the session begins, every participant is given a brief mood and stress test to assess their current emotional state in the present moment. People are asked to complete a survey at the end of each session, in which they are asked to rate how much they learnt, how they felt emotionally, and how valuable they believe the session was. For each week, these responses are used in the process of developing individualised wellness objectives. Facilitators are thus able to monitor the situation's progress and adjust their assistance accordingly as needed.

To determine how well the programme performed at the beginning, middle, and end of the curriculum, the engine utilizes existing surveys. Ryff's Psychological Well-Being Scale and the General Health Questionnaire-12 are two of the most popular instruments that are used in this field. These instruments track the progression of mental health over time to provide an objective evaluation of the efficacy of various treatments. To enhance knowledge of patterns and identify those that require more attention, it can be beneficial to conduct supplemental weekly evaluations using visual analogue scales (VAS) for engagement, tension, and enjoyment.

A centralised dashboard interface is shown in Figure 4. Facilitators can utilise this interface to see insights at the class level as well as participant trajectories. A comprehensive compilation and analysis of all the gathered data is performed through this interface. In this way, Table 3 gives a strategy that can be modified to accommodate the ever-evolving psychological and emotional needs of the children.

Table 3. Tools used for Metrics and Evaluation

Tool/Instrument	Purpose	Frequency	Data Type
Pre/Post Session Survey	Keep track of feelings and feedback over time.	Weekly (before/after)	Quantitative + Qualitative
Ryff's PWB Scale	Look at changes in long-term health	Week 1, Week 4, Week 8	Quantitative
GHQ-12	Look at how much psychological suffering there is	Week 1 & Week 8	Quantitative
Visual Analog Scale (VAS)	Rate the state of mind and tension from 0 to 10.	Weekly	Quantitative
Reflective Journaling	Get personal comments and insights	Weekly (optional)	Qualitative

For the engine to function correctly, there must be a connection between learning and overall mental wellness. As an alternative to relying solely on assessments at the end of the line, the module incorporates components such as mental safety, travel assistance, and mid-course adjustments. Additionally, this demonstrates that the SMHEP programme is effective through the use of data-driven validation, making the intervention suitable for replication at other institutions.

3.4 The user interface for the reporting and analytics of the data

The Data Analytics and Reporting Interface is the primary layer of the SMHEP, responsible for decision support and visualization within the system. Information that is essential for researchers, educators, and facilitators working in the field of mental health is provided by it. There is a single location for all of the program's data, which is the digital dashboard. This process converts raw data into clear, easy-to-understand graphs and indicators. The results of pre-screening, comments from weekly sessions, wellness examinations, and personal reflection scores are examples of the various types of information included in this. Through the facilitation of real-time monitoring, longitudinal tracking, and comparative analysis, this interface contributes to the smoother operation of programs and facilitates the more effective utilization of evidence. Dashboard architecture and flow is given in Figure 5.

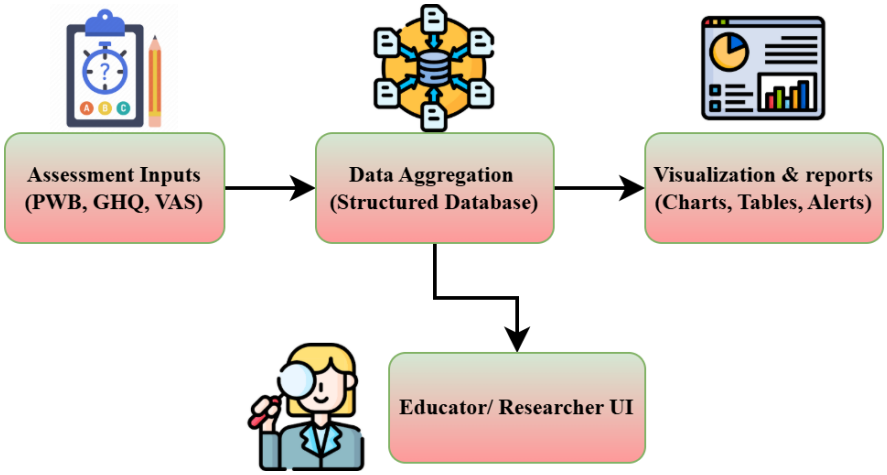

Figure 5. Dashboard architecture and flow

Through the use of the interface's interactive graphs, heatmaps, timelines, and tables, users can recognize patterns in the mental health of both individuals and groups. Take, for instance, the fact that facilitators could monitor the participants' performance on the Ryff Psychological Well-Being (PWB) Scale from the first week to the eighth week of the study. If they see a significant drop in GHQ-12 scores, they need to pursue such individuals. It is possible to filter the dashboard by age, academic department, and year of study, which can help conduct more targeted research or inform policy formulation.

The interface can automatically generate reports at various levels. Participants will receive individualized progress reports that contain descriptions of their personal growth, assessments of their involvement in sessions, and comparisons of their scores before and after the examination. The facilitators receive data at the cohort level every week, which includes demographic information such as attendance patterns, average mood ratings, and levels of involvement. Considering that researchers can export anonymized data, they can conduct a large number of statistical studies and program effect evaluations. This not only facilitates the comparison of results obtained from other institutions but also enhances the repeatability of academic work, as shown in Table 4.

Table 4. Data Analytics and Reporting Interface

Feature	Purpose	User Benefit
Live Score Display	A graph showing the patterns of PWB and GHQ-12	Find out whether changes in mental health are good or bad
Weekly Activity Tracker	Keep an eye on how many people come to sessions and how good their feedback is	Keep track of the danger of dropping out and the module's popularity
Heatmaps and Alerts	Emphasize emotional changes and signs of danger	Prompt targeted support and counselor alerts
Sorts for Demographics	Sort and compare data by age, gender, major, and other factors	Allow subgroup analysis for customized interventions
Report Builder	Export reports for individuals and groups in PDF or CSV format	Help with evaluating, publishing research, and getting comments
Records Export for Survey	Share datasets that don't include any personal information for research purposes	Encourage openness and more scholarly research

Through the process of consolidating all the data and presenting it in a comprehensible manner, the Data Analytics & Reporting Module simplifies performance monitoring and fosters continuous improvement. The administrators of the program can utilize feedback loops to make evidence-based modifications to the delivery of instruction. The provision of psychological therapy can be transparent and honest, and a structure that allows for the scalability of the institution can be established. By utilizing this interface, the SMHEP is transformed into a data-driven intervention plan that can be effectively evaluated. This contributes to the improvement of mental health and has the potential to be authorised in academic settings.

3.5 Structured Mental Health Education Model

The Structured Mental Health Education Model is an eight-week course designed for college students to enhance their mental health. This 90-minute programme is a mix of theory and practice. It includes psychoeducational lectures, small-group work, cognitive-behavioral therapy (CBT), and mindfulness exercises. Table 5 below is a description of each of the eight modules, along with an explanation of its theoretical foundation, objectives, and potential applications.

Table 5. Weekly Model Structure

Weekly Model Structure
Week 1 → Mental Health Literacy
Week 2 → Stress & Anxiety Management
Week 3 → Mindfulness & Self-Awareness
Week 4 → Emotional Regulation
Week 5 → Positive Psychology & Strengths

Week 6 → Resilience Building
Week 7 → Peer Support & Communication
Week 8 → Self-care Planning & Reflection
Each session: 90 minutes
20 mins → Lecture
30 mins → CBT/Mindfulness Practice
20 mins → Group Discussion
20 mins → Journaling & Takeaway Tasks

3.5.1 Mental health education

In this beginner's course, you'll learn the foundations of mental health. Topics include the emotional wellness continuum, common mental diseases, and signs of emotional distress. It can draw attention to the need to get rid of the stigma around mental illness and encourage those who need assistance to get it by making talks about mental health more common. This workshop teaches mental health literacy based on the following.

- ✓ Recognising signs in oneself and other groups of persons.
- ✓ Learning about the causes and risk factors.
- ✓ One needs to be able to recognize when help is needed and how to receive it.

Students need to learn more and stop spreading false information before early intervention and prevention programmes can be put into place.

3.5.2 Anxiety and stress management

Students will learn how to spot the indicators of academic and social stress and how to cope with them in this course. Students learn to distinguish between stresses they can control and those they cannot by building on Lazarus and Folkman's Transactional Model of Stress and Coping. There are a few ways I can accomplish it:

- ✓ Breathe deeply as it slowly let go of their muscles.
- ✓ Set priorities and worked efficiently within the given time frame.
- ✓ Cognitive reframing can help it stop dwelling on negative thoughts that could happen.

Cognitive behavioural therapy (CBT) exercises, such as role-playing and worksheets, help students learn how to cope with stress and fatigue in a healthy way.

3.5.3 Mindfulness and Self-Awareness

Breathing exercises, physical scanning, and guided meditations are techniques that help develop mindfulness, which involves paying full attention to the present moment. Students gain a more profound sense of self-awareness in this module by practicing non-reactive observation of their thoughts and feelings. For example, these benefits come from combining ACT with MBSR (Mindfulness-Based Stress Reduction):

- ✓ Pay close attention and sharpen their focus.
- ✓ Mood swings and negative thinking patterns were not as prevalent.
- ✓ A greater capacity for emotional regulation and attainment of inner tranquilly.

Journaling activities and encouraging self-reflection help them see patterns in their behaviour more clearly.

3.5.4 Emotional Regulation

Being able to manage their emotions is crucial for academic success and maintaining positive relationships with others. It can find items like this here:

- ✓ Recognising patterns and signals to learn more about how people feel.
- ✓ It is healthier to recognise and embrace one's emotions rather than to attempt to suppress or disregard them.
- ✓ Cognitive restructuring, emotional reappraisal, and distress tolerance training are methods for managing emotions.

Using Gross's Process Model of Emotion Regulation as a guide, students will learn how to manage their feelings, maintain self-control when faced with challenges, and regulate their emotions.

3.5.5 The Importance of Positive Psychology and Finding the Strengths

Students will learn to find and build on their strengths by adopting principles from Positive Psychology (Seligman & Csikszentmihalyi). Some good ways to do this are to maintain a gratitude diary and take the VIA Strengths Inventory.

- ✓ Encourage an optimistic and cheerful attitude.
- ✓ Recognizing and utilizing their abilities can boost their self-esteem.
- ✓ Think positively about their skills and try to improve them.

Children are more likely to develop a healthy self-image that includes strength, competence, and a sense of purpose if it helps them focus on their positive attributes instead of their negative ones.

3.5.6 Making their defences stronger

One way to define resilience is the capacity to bounce back swiftly from setbacks. To build emotional strength, this curriculum will look at:

- ✓ Being able to change how it think about bad things.
- ✓ The act of facing challenges directly with a new feeling of purpose and excitement.
- ✓ Setting goals and evolving strategies as required.

In this course, students will learn how to cultivate a growth mindset and overcome obstacles through the use of stories, case studies, and visualization techniques.

3.5.7 Peer support and Communication

For mental and emotional wellness, it's essential to have friends and family who support. By completing activities like this session, one will learn how to listen more effectively, understand others better, and communicate with them more effectively.

- ✓ Role-playing and listening activities.
- ✓ Activities for addressing problems as a group.

It will discuss how to give and receive aid in the right way and why it's essential to establish reasonable boundaries. This course, based on interpersonal dynamics, aims to alleviate some of the loneliness and stress that college students experience daily by fostering friendships that benefit both individuals.

3.5.8 Self-care Planning and Reflection

As a final project, students apply what they've learned in class to come up with a new way to take care of themselves. The actions that need to be taken are:

- ✓ Finding methods to take care of yourself on all levels: physical, mental, social, and spiritual.
- ✓ They always find time for themselves in their busy lives.
- ✓ Looking at how the programme has done in the past and making plans to do it better in the future.
- ✓ Students will leave with a pragmatic approach to fostering enduring mental health practices, supported by tools such as the Self-Care Wheel and guided visualizations.

The Structured Mental Health Education Model's modules are grounded in theory, but they focus on practical applications and are supported by real-life examples from students' experiences. It blend classroom learning with hands-on activities and reflective journaling to provide students with a well-rounded education in psychology. The course equips children with a comprehensive set

of skills that encompass the cognitive, emotional, behavioral, and social aspects of mental health, enabling them to develop emotional resilience, excel academically, and experience life more fully.

This work examined the results of the two groups on mental health indicators before and after the intervention at two separate dates to assess the effectiveness of SMHEP.

Total Participants are given in Equation (1):

$$S = 320 \quad (1)$$

In this study, S signifies the total count of participating students.

It will divide these students into two groups:

Control Group: C_1 (not given SMHEP).

The Intervention Group C_2 For short, it will receive SMHEP funding.

So, the classes are given in Equation (2):

$$C = \{C_1, C_2\} \quad (2)$$

It looks into the groups that are around the same size in Equation (3):

$$|C_1| \approx |C_2| \approx 160 \quad (3)$$

Time points are shown in Equation (4):

$$P = \{P_0, P_1\} \quad (4)$$

The first assessment P_0 is done before the program starts for new participants.

The last assessment P_1 will be following the 8-week course

At these times, participants will have fixed evaluation checkpoints.

Well-being Scores are given in Equation (5):

$$B_{n,p} \quad (5)$$

For student n at time p, the Ryff Psychological Well-being (PWB) Scale score is $B_{n,p}$. Autonomy is a popular region on the PWB scale. There are further categories for life purpose, self-acceptance, and personal improvement.

Group-Wise Average:

After that, these sections are added together to generate a total score, which is calculated in Equation (6).

$$\Delta B_{group} = \frac{1}{|C|}\sum_{n \in C}\left(B_{n,P_1} - B_{n,P_0}\right) \quad (6)$$

It can see the average difference in group well-being ratings, which is C_1 or C_2. This indicator shows how much better the group performed on average during the program's duration.

To sum up,

If $\Delta B_{C_2} > 0$ the change in the intervention group was excellent.

If $\Delta B_{C_1} \approx 0$, then the control group showed no signs of change.

If both groups become better in the same manner, it will indicate that the program isn't to fault. It can determine whether the students did better by comparing their scores on the pre-

and post-tests, and averaging the percentage difference. The effectiveness index (I) can indicate the extent of improvement in the intervention group compared to the control group and is given in Equation (7).

$$I = \Delta B_{C_2} - \Delta B_{C_1} \quad (7)$$

I stands for the average amount of improvement when one looks at the two groups.

The SMHEP's care led to this happening.

$I > 0$: The intervention group fared better than the control group, which shows that I had a good effect.

$I = 0$: If the two groups are the same, then the program doesn't function.

$I < 0$: When the intervention group does not make considerable progress, the likelihood of adverse consequences increases. Formal hypothesis testing determines if the difference is statistically significant.

Test Utilized: T-test (with independent samples):

Checks to see if the average scores for C_1 and C_2 are very different.

This relies heavily on whether the variables are normally distributed and have the same variance.

The Analysis of Covariance in the ANCOVA style:

It ensures that the results of subsequent tests are consistent with those that came before.

This is especially helpful when the initial assessments are different.

Null Hypothesis (H_0): $I = 0 \rightarrow$ No difference between groups

The Alternative Hypothesis (H_1): $I > 0 \rightarrow$ asserts that the intervention group exceeded the control group under the circumstances. A level is often used to determine whether something is pertinent.

Algorithm 1: SMHEP_Evaluation

Input: Student Cohort S = {s_1, s_2, ..., s_I}

Results: Higher PWB and GHQ scores, as well as qualitative insights

1. Set session_schedule to 8 weeks

2. For every student S, do:

Record PWB_pre[session] ← Using the PWB scale for a pre-assessment

Record GHQ_pre[session] ← Using GHQ-12 for a pre-assessment

3. For week w in 1 to 8, do:

Take session_w that covers PM, ERT, MSR, and PCS.

Keep track of attendance and participation for each session.

4. For every student S, perform the following:

Record PWB_post[session] → After the test

Record GHQ_post[sessions] → After the test

5. Find ΔPWB by calculating Mean(PWB_post) - Mean(PWB_pre)

ΔGHQ = Average(GHQ_post) - Mean(GHQ_pre)

6. Do a statistical analysis:

- Use a paired t-test on ΔPWB and ΔGHQ - Find Cohen's d for the magnitude of the impact

7. Do a thematic analysis of the students' reflections.

Return: Results of the statistics and thoughts on themeS

Algorithm 1 shows that when it comes to determining the effects of a structured mental health education program on college students, the SMHEP Evaluation is the most effective method. To begin, the Psychological Well-being (PWB) scale and the General Health Questionnaire (GHQ-12), both of which are standard forms, will be administered to each individual who is going to take part in the study. It will facilitate the establishment of baseline mental health metrics. The participants will learn from their peers how to effectively communicate with people, how to cope with stress, how to manage their emotions, and how to pay attention to what others are saying throughout the course of eight weeks. A fresh strategy to deal with stress and unwelcome emotions is shown to one in each course. After the intervention, every student must undergo an assessment. Changes in scores (both ΔPWB and ΔGHQ) are used by the program to determine whether or not an individual has shown progress. In order to investigate the magnitude of the effects and the statistical significance of those effects, it employs Cohen's d and paired t-tests. Through the provision of extra qualitative data that may be leveraged to acquire feedback on experience and emotional outcomes, thematic analysis of student comments has the potential to assist with program evaluation.

3.5.9 Dataset Description:

The study involved 320 students, aged 18-24, from four participating schools. The students were randomly separated into two equal groups [27]. There were 160 students in the SMHEP's Intervention Group (G_2). The control group

(G_1) of the study consisted of 160 students who did not participate in any formal mental health intervention throughout the experiment.

Inclusion:
Undergraduates who are presently enrolled have no significant history of mental illness. The subject must complete the whole of the 8-week research period.

Exclusion:
Questions that weren't answered on the exam before or after quitting the program halfway through. Some of the demographic characteristics used to ensure the distribution was fair included gender, age, level of education, and whether the person had previously received treatment for mental health problems.

3.5.10 Experimental Setup:

Table 6: Configuration details

Category	Details
Design Type	Pre-test/Post-test Control Group Design
Duration	8 Weeks
Session Format	1 session per week, 90 minutes each
Environment	Conducted in a real academic setting
Facilitators	Clinical Psychologists and Peer Mentors in regular school environments
Intervention Components	- Mental health literacy- Cognitive Behavioral Therapy (CBT) strategies- Mindfulness practices- Peer support training
Attendance Tracking	Log maintained for participation in each of the six core sessions
Control Group	No intervention; wait-listed and started after post-test evaluation

4. Results and discussions

To determine the efficacy of the Structured Mental Health Education Program (SMHEP), it employed both psychometric testing and statistical analysis. The two periods that were meant to be used for information gathering were T_0 (week 0 before the test) and T_1 (week 1 after the test). The General Health Questionnaire-12 (GHQ-12) and Ryff's Psychological Well-Being Scale are two well-known assessments for mental health that are used. To determine whether the program had an effect on the mental health of the participants and whether the changes were statistically significant, the researchers performed paired t-tests and analysis of variance. Table 6 presents configuration details.

4.1 Time points (T_0 & T_1) and Psychological Well-Being (PWB)

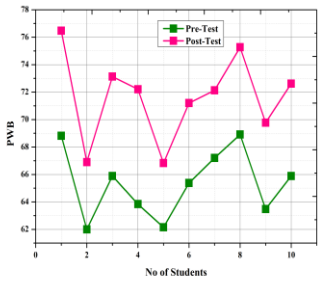

Figure 6. PWB

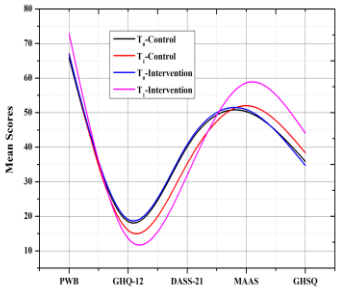

Figure 7. T_0 & T_1

It gathered data at two separate points in time: T_0 (Pre-test, Week 0) and T_1 (Post-test, Week 9) to determine the duration of the effects of SMHEP, as shown in Figure 6. It assessed T_0 to provide a baseline of how each person was feeling before any therapy. To confirm that the data accurately represented any immediate outcomes from the program, T_1 was administered immediately after the 8-week intervention. This kind of study facilitates both intra-group (paired) comparisons and inter-group (intervention vs control) comparisons, which are crucial for deriving causal conclusions and validating programs.

The PWB Scale, a 42-question psychometric instrument that assesses eudaimonic well-being, is shown in Figure 7. Six subdomains address aspects such as autonomy, control over one's environment, personal growth, building positive connections, finding meaning in life, and embracing oneself. If it get a higher cumulative score on a Likert scale for each question, it suggests their mental health is better. The SMHEP's primary purpose is to improve all types of mental health, and this scale is a valuable tool for measuring that. Researchers can utilize the PWB to assess how healthy individuals are performing in three areas of health: emotional control, psychoeducation, and mindfulness.

4.2 General Health Questionnaire (GHQ-12) and Depression Anxiety Stress Scale (DASS-21)

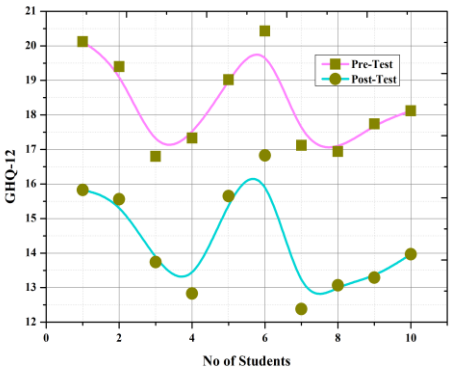

Figure 8. GHQ-12

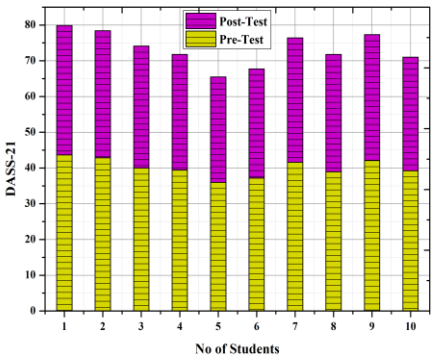

Figure 9. DASS-21

The General Health Questionnaire–12 (GHQ-12) is a fast and straightforward technique to find out whether someone has a mental illness that isn't psychotic or if they feel lousy mentally, as shown in Figure 8. The most obvious signs are nervousness, trouble getting along with others, and low self-esteem, which have been going on for the last several weeks. To generate a binary or Likert-scale total score, each item is on a 4-point Likert scale. The SMHEP test includes the GHQ-12, which checks for signs of mental illness. It is a clinically based addition to the PWB that helps link pain and well-being. Their mental health is getting better if their GHQ-12 score goes down from T_0 to T_1.

The DASS-21 is a shortened version of the original 42-item scale that measures symptoms of stress, depression, and anxiety. Each subscale consists of seven components, and each element has a 4-point frequency scale, as shown in Figure 9. The DASS-21 is a fantastic way to assess SMHEP, as it works well for those who are doing well, such as college students. Researchers can determine which specific emotional difficulties the program helps address by breaking down emotional pain into its constituent elements. If the DASS-21 scores showed a statistically significant improvement, it would suggest that participants in the SMHEP were able to manage their emotions and reduce their stress.

4.3 Mindful Attention Awareness Scale (MAAS) and General Help-Seeking Questionnaire (GHSQ)

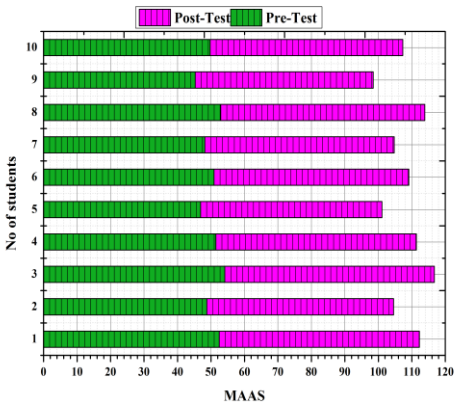

Figure 10. MAAS

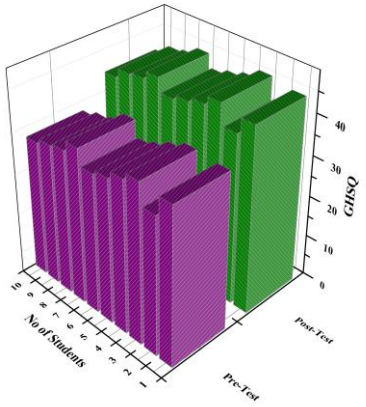

Figure 11. GHSQ

The MAAS is a 15-item test that assesses how well it can pay attention to the present moment, which is one component of being mindful, as illustrated in Figure 10. The participant's reaction depends on how often they are distracted. The effectiveness of the Mindfulness and Stress Reduction (MSR) module in the SMHEP environment is evaluated using the MAAS. When MAAS scores go up from T_0 to T_1, it means that pupils have become more psychologically resilient and better at self-regulation. This means that they are more aware of the current moment and less likely to act on impulse.

The GHSQ looks at many sources (including friends, experts, and the internet) to assess whether and how people plan to get help for mental health issues. Figure 11 illustrates a 10-item Likert scale that measures the likelihood of someone seeking help for social and mental health issues. This measure of behavioral intentions was included in the SMHEP assessment since the program emphasizes normalizing help-seeking and reducing stigma. Using psychoeducational and peer support methods boosts GHSQ scores, suggesting that youngsters are more likely to seek assistance on their own.

4.4 Paired t-test and Correlation analysis, or ANCOVA

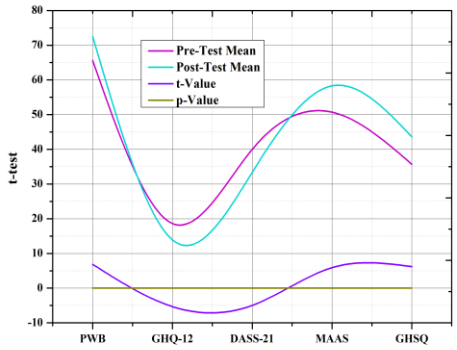

Figure 12. Paired t-test

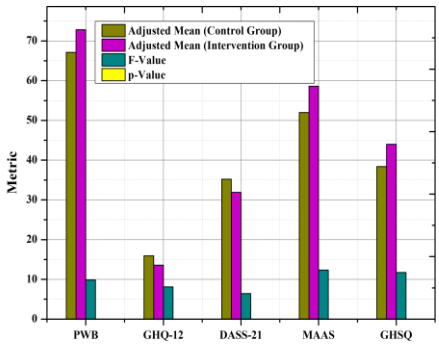

Figure 13. ANCOVA

Figure 12 illustrates that the paired t-test was used to compare groups and determine whether there was a statistically significant difference in the mean psychometric scores between T_0 and T_1. Researchers can examine the lasting impacts of SMHEP on participants' health by evaluating their pre- and post-program scores on the PWB. To enhance statistical power, all students are regarded as independent controls. A p-value below 0.05 indicates that the observed improvement is unlikely due to random variation, hence confirming the program's immediate effectiveness within that group.

Figure 13 illustrates that to compare the performance of the intervention and control groups on the exam, ANCOVA is a suitable approach, as it accounts for variations in scores before the test. This update makes it clear that any changes that happen early on will have an impact at T_1. The ANCOVA method makes the effectiveness index more accurate by taking into account baseline demographic characteristics including age, gender, and health status. Using ANCOVA helps determine the genuine effect of the therapy by making sure that any changes in the SMHEP assessment are caused by the intervention and not by variations in demographics or baseline advantages.

4.5 Cohen's d:

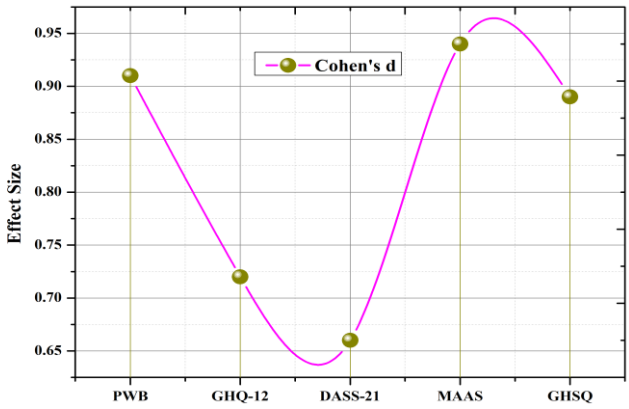

Figure 14. Cohen's d

According to Figure 14, P-values show that the change is significant, whereas Cohen's d informs how huge the change is and how important it is in real life. To find it, put the two sets of means' standard deviations together and divide that by the difference in means between those sets. In the SMHEP assessment, Cohen's d can be used to determine whether the changes in well-being ratings are modest (0.2), moderate (0.5), or substantial (≥0.8). A high Cohen's d in PWB or MAAS indicates that the intervention has a significant impact on individuals' mental health in real-world contexts, beyond mere numerical representation.

When combined, these steps provide a thorough and statistically solid picture of how effectively the SMHEP functions. These metrics not only indicate whether the program was effective, but they also reveal how, for whom, and on what psychological levels it was beneficial. It can use this information to improve the program and apply it in other schools.

5. Conclusion

For those individuals who participated in the Structured Mental Health Education Program (SMHEP), their mental health was likely in better shape before enrolling in college. Participants were provided with peer support, psychoeducation, cognitive-behavioral

techniques, and mindfulness practices to acquire knowledge about mental health throughout eight weeks. Compared to those in the control group, individuals in the intervention group reported higher levels of happiness, lower levels of anxiety, increased levels of attention, and a greater likelihood of seeking help. According to these results, schools need to educate about mental health in a manner that is both proactive and skill-based within the educational process. With the use of recognized psychometric tests and a mix of approaches, the results were far more reliable than they would have been otherwise. It was not only that the SMHEP taught children how to deal with their feelings, but it also provided them with a safe environment in which they could grow and work through the difficulties they faced. If college students who have mental illness participate in structured activities such as these, they can improve their academic performance and develop into better individuals. It would be a solution to the problem of mental illness on college campuses on a large scale.

The fact that the research is conducted for only one semester and relies on data provided voluntarily raises the possibility of bias. In the future, studies should investigate digital distribution strategies, utilize larger and more diverse samples, and examine their impacts over a longer period. Through the use of faculty input and biological stress indicators such as cortisol levels, it is possible to improve the ability to evaluate the efficacy of an intervention and assist institutions in working together more effectively.

Acknowledgement

Key Project of Scientific Research Projects (Philosophy and Social Sciences) in Anhui Colleges and Universities in 2022: "Research on the Integration Path and Mechanism of Professional Education and General Education in Colleges and Universities under the Background of the New Era—Taking an Applied Undergraduate College in Anhui Province as an Example" (Project No. 2022AH051840)

Author Contribution

Miaomiao Xu: Methodology, Conceptualization, Supervision, Writing – original draft

Ooi Boon Keat: Data collection and analysis, Data interpretation, Writing – review &amp

Conflict of interest

The authors declare that they have no competing interests.

Funding

No funding is available for this research.

Ethical Approval Statement

There were no human subjects, animals, or methods that would have needed ethical approval under existing regulations, thus this research did not need it.

References

Gallo, G. G., Curado, D. F., Machado, M. P. A., Espíndola, M. I., Scattone, V. V. and Noto, A. R., 2023, A randomized controlled trial of mindfulness: effects on university students' mental health. *International Journal of Mental Health System*s, 17(1), 32.

Olsson, T. M., Broberg, M., Frisk, S., Wackenhut, A. F., Kjellin, D., Gullstrand, S., Rost, S. and Skoog, T., 2024, Health-Promoting Learning Environments in Higher Education: A Scoping Review of Structural Interventions to Protect Student Mental Health. *European Journal of Education*, *59*(4), e12772.

Hammoudi Halat, D., Sami, W., Soltani, A. and Malki, A., 2024, Mental health interventions affecting university faculty: a systematic review and meta-analysis. *BMC Public Health*, *24*(1), 3040.

Jeftic, I., Furzer, B. J., Dimmock, J. A., Wright, K., Boyd, C., Budden, T., Rosenberg, M., Kramer, B., Buist, B., Fitzpatrick, I. and Sabiston, C., 2023, Structured exercise programs for higher education students experiencing mental health challenges: background, significance, and implementation. *Frontiers in Public Health*, *11*, 1104918.

Ta, A., Salgin, N., Demir, M., Randal, K. P., Mehta, R. K., McDonald, A., McCord, C. and Sasangohar, F., 2025, Real-Time Stress Monitoring, Detection, and Management in College Students: A Wearable Technology and Machine-Learning Approach. *arXiv preprint arXiv:2505.15974*.

Nepal, S., Pillai, A., Campbell, W., Massachi, T., Heinz, M.V., Kunwar, A., Choi, E. S., Xu, X., Kuc, J., Huckins, J. F. and Holden, J., 2024, MindScape Study: Integrating LLM and Behavioral Sensing for Personalized AI-Driven Journaling Experiences. *Proceedings of the ACM on interactive, mobile, wearable and ubiquitous technologies*, *8*(4), 1-44.

Robinson, N. L., Connolly, J., Suddrey, G. and Kavanagh, D. J., 2024, A brief wellbeing training session delivered by a humanoid social robot: a pilot randomized controlled trial. *International Journal of Social Robotics*, *16*(5), 937-951.

Berman, A. H., Topooco, N., Lindfors, P., Bendtsen, M., Lindner, P., Molander, O., Kraepelien, M., Sundström, C., Talebizadeh, N., Engström, K. and Vlaescu, G., 2024, Transdiagnostic and tailored internet intervention to improve mental health among university students: Research protocol for a randomized controlled trial. *Trials*, *25*(1), 158.

Ciharova, M., Cuijpers, P., Amanvermez, Y., Riper, H., Klein, A. M., Bolinski, F., de Wit, L. M., Van Der Heijde, C. M., Bruffaerts, R., Struijs, S. and Wiers, R. W., 2023, Use of tailoring features and reasons for dropout in a guided internet-based transdiagnostic individually-tailored cognitive behavioral therapy for symptoms of depression and/or anxiety in college students. *Internet Interventions*, *34*, 100646.

Zarski, A. C., Weisel, K. K., Berger, T., Krieger, T., Schaub, M. P., Berking, M., Görlich, D., Jacobi, C. and Ebert, D. D., 2024, Efficacy of an internet-and mobile-based intervention for subclinical anxiety and depression (ICare prevent) with two guidance formats: results from a three-armed randomized controlled trial. *Psychotherapy and psychosomatics*, *93*(3), 155-168.

Padmanabhan, S., 2022, Psychoeducation intervention for the mental health of college students. *Sci Front*, *3*(1), 17.

Chen, J., Yuan, D., Dong, R., Cai, J., Ai, Z. and Zhou, S., 2024, Artificial intelligence significantly facilitates development in the mental health of college students: a bibliometric analysis. *Frontiers in Psychology*, *15*, 1375294.

Jackson, H. M., Batterham, P. J., Calear, A. L., Ohan, J. L. and Farrer, L. M., 2024, Skill Enactment Among University Students Using a Brief Video-Based Mental Health Intervention: Mixed Methods Study Within a Randomized Controlled Trial. *JMIR Mental Health*, *11*, e53794.

Klein, A., Wolters, N. E., Bol, E. J. M., Koelen, J., De Koning, L., Roetink, S. S. M., van Blom, J. J., Pronk, T., van der Heijde, C., Salemink, E. and Bolinski, F., 2021, Online computer or therapist-guided cognitive behavioral therapy in university students with anxiety and/or depression: study protocol of a randomised controlled trial. *BMJ open*, *11*(11), e049554.

Van Doorn, M., Nijhuis, L. A., Egeler, M. D., Daams, J. G., Popma, A., van Amelsvoort, T., McEnery, C., Gleeson, J. F., Öry, F. G., Avis, K. A. and Ruigt, E., 2021, Online indicated preventive mental health interventions for youth: a scoping review. *Frontiers in Psychiatry*, *12*, 580843.

Herbert, C., 2022, Enhancing mental health, well-being and active lifestyles of university students by means of physical activity and exercise research programs. *Frontiers in public health*, *10*, 849093.

Chaudhry, S., Tandon, A., Shinde, S. and Bhattacharya, A., 2024, Student psychological well-being in higher education: The role of internal team environment, institutional, friends and family support and academic engagement. *Plos one*, *19*(1), e0297508.

Klainin-Yobas, P., Vongsirimas, N., Ramirez, D. Q., Sarmiento, J. and Fernandez, Z., 2021, Evaluating the relationships among stress, resilience and psychological well-being among young adults: a structural equation modelling approach. *BMC nursing*, *20*, 1-10.

Franzen, J., Jermann, F., Ghisletta, P., Rudaz, S., Bondolfi, G. and Tran, N. T., 2021, Psychological distress and well-being among students of health disciplines: The importance of academic satisfaction. *International journal of environmental research and public health*, *18*(4), 2151.

Tran, M. A. Q., Vo-Thanh, T., Soliman, M., Khoury, B. and Chau, N. N. T., 2022, Self-compassion, mindfulness, stress, and self-esteem among Vietnamese university students: Psychological well-being and positive emotion as mediators. *Mindfulness*, *13*(10), 2574-2586.

Jeong, S., Aymerich-Franch, L., Arias, K., Alghowinem, S., Lapedriza, A., Picard, R., Park, H.W. and Breazeal, C., 2023, Deploying a robotic positive psychology coach to improve college students' psychological well-being. *User Modeling and User-Adapted Interaction*, *33*(2), 571-615.

Kim, I. and Ahn, J., 2021, The effect of changes in physical self-concept through participation in exercise on changes in self-esteem and mental well-being. *International journal of environmental research and public health*, *18*(10), 5224.

Nahar, Z., Sohan, M. D., Supti, K. F., Hossain, M. J., Shahriar, M., Bhuiyan, M. A. and Islam, M. R., 2022, Prevalence and associated risk factors for mental health problems among female university students during COVID-19 pandemic: A cross-sectional study findings from Dhaka, Bangladesh. *Heliyon*, *8*(10).

Brunsting, N. C., Zachry, C., Liu, J., Bryant, R., Fang, X., Wu, S. and Luo, Z., 2021, Sources of perceived social support, social-emotional experiences, and psychological well-being of international students. *The Journal of Experimental Education*, *89*(1), 95-111.

Kadian, S., Joseph, J., Pal, S. and Devi, R., 2022, Brief resilience interventions for mental health among college students: randomized controlled trial. *Asian Journal of Social Health and Behavior*, *5*(3), 131-137.

Kraiss, J. T., Kohlhoff, M. and Ten Klooster, P. M., 2023, Disentangling between-and within-person associations of psychological distress and mental well-being: An experience sampling study examining the dual continua model of mental health among university students. *Current Psychology*, *42*(20), 16789-16800.

https://www.kaggle.com/datasets/sonia22222/students-mental-health-assessments