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Implementing university wellness program for mental wellbeing among health science students: A protocol for implementing an intervention program in higher educational institutions Chennai Tamil Nadu

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Abstract:

BACKGROUND: University students, especially those in the health sciences, face significant mental health challenges due to demanding academic schedules and personal stressors. The University Wellness Programme (UWP) is committed to enhancing mental health and overall well-being by implementing comprehensive interventions.

METHODS AND MATERIALS: The pilot study was conducted at a private higher educational institution in Chennai, Tamil Nadu, with 200 health science students participating. The study is expected to expanded to include 600 participants. A quasi-experimental field study with a control group and a cross-sectional design was implemented. Interventions included recreational clubs, life skills and mindfulness training, and counselling services tailored to students. Data were collected using a validated wellness assessment tool with high reliability (Cronbach's alpha = 0.912). Pre- and post-intervention evaluations were conducted over a six-month period.

RESULTS: In the pilot study, 55% of students reported excellent overall wellness, while 15% reported poor wellness. Additionally, 20% of students reported experiencing high levels of depression, while 25% reported high levels of stress. Substantial improvements in students' mental health were observed, with reductions in anxiety, depression, and stress. The stress management sessions were found to be beneficial by 80% of students, while life skills training and recreational clubs received high participation rates and positive feedback.

CONCLUSION: The UWP's comprehensive, multimodal approach effectively improves mental health and reduces stress among health science students. The program's success highlights the importance of integrating mental health promotion into higher education. In order to enhance the well-being of students, future implementations should prioritize expanding counselling services, life skills development, and recreational activities. The results underscore the need for tailored interventions to address the unique stressors faced by students, advocating for policy development and dedicated funding for wellness programs in universities.

Keywords:

Depression, health science students, mental health, university wellness programmes

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Introduction

The University Wellness Programme (UWP) is an immersive learning platform designed to encourage students to reflect, strategize, and carry out interdisciplinary projects aimed at enhancing the campus

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community.[1] University students often experience a significant life transition, as many must make substantial lifestyle adjustments when moving from a structured environment like high school to a more unstructured one, such as university.[2] This period can be among the most stressful in a person's life. College life introduces new responsibilities, unfamiliar situations, and more demanding academic tasks.[3]

Mental Health issues are common among university students research indicating a significantly higher incidence of depressive disorders among those students studying health sciences.[4,5] Studies has shown that early life experiences, even those occurring before conception, influence a person's development and affect their health, well-being, or illness progression throughout their life.[6] Implementing an intervention program suggests that the most effective pre-prevention methods for promoting public health and human development are those introduced during the teenage years.[7]

Research demonstrating the positive impact of strong mental health on recovery and resilience against physical and mental disease has brought significant attention to the concept of well-being in mental health.[8] The notably high incidence of depression and anxiety among undergraduate health science students is likely due to their demanding academic curriculum, clinical rotations, and personal stressors.[8] Enhancing mental health education within higher education institutions has been recognized as a critical aspect of educational administration.[9]

Individuals who engage in preventive health behaviors can take proactive steps to avoid the onset of various illnesses and diseases. College students often do not place excessive academic pressure on themselves, which can promote healthier preventative behaviors.[10] This protocol study involves an initiative under the University Wellness Program to develop tools for assessing mental wellness among students. The protocol also aims to showcase the various implementation activities and assess their impact.

The university has allocated a substantial budget for promoting mental wellness among students. This implementation research consists of three main components: the development of tools for mental wellness, the research and implementation process, and the assessment of the implementation's impact. We conducted a pilot study with 200 students and plan to replicate it with 600 students from various medical and health science colleges. The program includes several interventions aimed at to improving students' the mental health.

Students, known as University Wellness Programme champions, manage the initiative independently with the institution providing a modest honorarium. This new research aims to enhance student engagement by analyzing the mental well-being of health science students and proposing an intervention program for the institution. The study carefully evaluates the efficacy of the intervention using pre- and post-evaluations.

Mental Health issues and perceived stress are highly prevalent among students studying in higher education institutions, largely due to their demading academic schedules. It is the institution's responsibility to address these issues by implementing mental health initatives targeted at the student community. This study will provide empirical data on the mental health status and stress levels of the students, specific interventions in place and the impact will be assessed.

(i) To assess the mental health status and perceived stress levels of health science students enrolled in a private higher educational institution in Chennai, Tamil Nadu.
(ii) To implement mental wellness initiatives within the University Wellness Program, specifically tailored for health science students.
(iii) To evaluate the effectiveness of the intervention program in improving mental well-being and reducing stress levels among students.

Materials and Methods

Study design and setting

This study employs a cross-sectional design study within a quasi-experimental field study framework. The proposed research and interventions will be conducted at a higher educational institution in Chennai, Tamil Nadu, with students actively participating in wellness activities. Using simple random sampling, both the intervention and control groups were selected, each consisting of 300 members. The wellness program will be implemented over a six-month period. Both groups will be measured at two points: before the intervention, and six months after its completion.

Participants and sampling

Approximately 600 health science students will be targeted for the study. Participants will be recruited through active engagement in wellness activities, with 300 students randomly assigned to the intervention group and 300 to the control group. Eligible students will be those who attend all intervention sessions and have no prior history of severe mental or chronic diseases. Stratified random sampling will ensure representation across various demographic variables of the student population.

Tool for data collection and methodology

Data collection will be conducted using standardized self-administered mental health questionnaires. The tool will assess various factors including mental health, physical health, nutrition, sexual health, and drug misuse. Validated tools such as the DASS-21 will provide the questionnaire items. Quantitative data collection will be at baseline and six months after the intervention. Attendance sheets will be used to track participation, while focus group discussions (FGDs) or interviews will supplement the quantitative findings. All participants will complete the full wellness assessment questionnaire and provide feedback on the clarity and relevance of the intervention questions. Students will also engage in life skills training and recreational groups. The validated mental health questionnaire demonstrated excellent reliability, with a Cronbach's alpha = 0.912, as shown in Figure 1.

Sample size calculation

Using a sample size of 300 for each group, we can estimate the prevalence with a margin of error of roughly 4.04% with a 95% confidence level. The equation Z2 = E2 Z2 = n = Z2 p · (1 - p) represents the relationship between Z2, E2, n, and p. To achieve a total sample size of 600 for the study, we established a target of 300 participants for both the intervention group and the control group.

Ethical consideration

The research received approval from the Institutional Review Board (IRB) at the School of Public Health, SRMIST, Chengalpattu, Tamil Nadu. The IEC protocol number for the study is PO/2020/10/02.

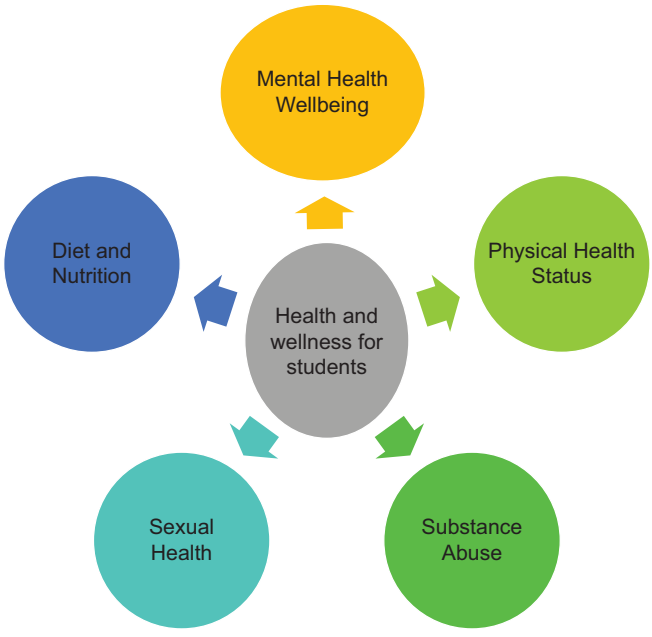

Figure 1: Domains framed with the help of experts related to psychology and psychiatry

Four health science departments will be randomly selected; two departments will serve as the intervention group and the other two will be used as the control group. Students will be randomly assigned to both intervention and control groups, with measures taken to ensure similar environmental and educational backgrounds across both groups.

Activity 1 - Student-friendly counselling services

Since February 2024, many medical and health science students have received mental health services from this facility, which offers both daytime and nighttime counseling. To increase awareness and student engagement, IEC materials have been displayed throughout the Health Science College. Four counselors currently employed, with two therapists available for oline counseling from 8 a.m. to 4 p.m. and 6 p.m. to 9 p.m. The Counseling programs focus on student mental health and suicide prevention.

Activity 2 - Life skills and mindfulness training for students

Student trainers from the psychology department provide life skills training to all students. Life skills training will be offered to students from all departments, with two days dedicated to this training each week. Each session will include two hours of instructions. The pilot study revealed various student needs including stress management, emotional control, self-esteem, relational resilience, goal setting, and achievement.

Activity 3 - Recreational clubs

Based on the pilot study and student demand, we established clubs for meditation, Zumba, yoga, aerobic activity, martial arts, dance (both western and classical), and swimming. Most of the club trainers are national-level athletes or experts in their respective fields. Club activities will take place from 4:00 p.m. to 5:30 p.m. These services are provided free of charge, and students will receive updates about training sessions and other relevant information via WhatsApp groups. Instructors will monitor student attendance. The program activities are outlined in Table 1.

The face validity of the depression assessment tool was evaluated by five professionals: two psychiatrists, two psychologists, and one experienced human resource manager. They were provided with the quantitative instrument specifically designed to assess depression.

Pilot Study Results: The study was conducted among 200 health science students from various departments within the institution, with a research duration of one month. Some refinements were made to the intervention activities based on the pilot study, and potential logistical and practical issues were identified. These issues will be addressed in the main research.

About 55% of the students were female, and 60% were in the 18 to 22-year age group. Students from various years of study was selected, as shown in Table 2.

In terms of mental wellness 55% of students reported excellent wellness, while 15% of reported poor wellness. Approximately 25% of the respondents experienced high stress levels, and 20% reported have high depression levels. About 20% of the respondents have high stress levels. The pilot study showed 83.3% response rate.

In the life skills training sessions, 80% of the students found the stress managements and emotional support sessions useful. High participation rates were observed in the yoga and dance clubs, as shown in Table 3.

Safety considerations

All the participant data will be maintained with the highest level of confidentiality and privacy. The data will be stored in a secure database. Counseling services will support the psychological well-being of students and help prevent self-harm or suicide. Ethical approval for the study was obtained from the Institutional Ethics Committee.

Follow-up process

Regular monitoring of the students' activities, progress, and challenges will be conducted. Weakly review meetings will be held to address concerns and gather feedback from students. An impact assessment will be performed to evaluate the effectiveness of the program.

Study status and timeline

An initial evaluation will be conducted at the start, followed by a six-month intervention program, and concluding with a post-intervention assessment. The pilot study confirmed the feasibility and applicability of the study. The timetable for the intervention activities is provided below in Table 3.

Table 1: Time line activities

List of Activities	Day	Time
Students friendly counseling Services	All Day	8 AM to 9 PM
Life skill and Mindfulness training for students	Monday, Wednesday, and Friday	2.30 PM to 4.00 PM
Meditation	Monday and Friday	4 PM TO 5.30 PM
Yoga	Tuesday and Thursday	4 PM TO 5.30 PM
Mentor-Mentee discussion	Wednesday	4 PM TO 5.30 PM

Table 2: Demographic characteristics of the respondents

Characteristics	Character	Frequency	Percentage
Gender	Male	90	45
	Female	110	55
Age Classification	18-22 years	120	60
	23-27 years	50	25
	28-32 years	20	10
	33+years	10	5
Year of Study	1st Year	50	25
	2nd Year	60	30
	3rd Year	40	20
	4th Year	30	15
	Postgraduate	20	10

Table 3: Mental wellness assessment results

Wellness Dimensions	Character	Frequency (*n*=200)	Percentage (%)
Overall Wellness	Excellent	30	15
	Good	80	40
	Fair	60	30
	Poor	30	15
Stress Levels	Low	50	25
	Moderate	100	50
	High	50	25
Anxiety Levels	Low	60	30
	Moderate	100	50
	High	40	20
Depression Levels	Low	70	35
	Moderate	90	45
	High	40	20

Discussion

The results of our research will provide a valuable insights into the psychological well-being of health science students and the potential benefits of targeted therapeutic interventions. Our findings support previous research, which indicates that anxiety problems that begin at an early age are associated to more severe and persistent symptoms. College students, in particular, have a higher propensity to experience mental health disorders, such as depression and anxiety.[11] This underscores the urgent need to address the welfare of those students promptly.

The use of UWP's multimodal strategy is expected to result in significant improvements in participants' subjective stress levels and overall mental wellness. By fostering the development of effective coping mechanisms, the program can reduce the likelihood of serious mental health consequences such as suicidal tendencies. Enhancing self-regulation and self-guidance through readily accessible counselling services can play a key role in this prevention[12].

The University Wellness Program's recreational clubs not only promote physical well-being but also provide students with opportunities to socialize and relax. A study supporting dance as a recreational activity shows that it enhances social well-being by transforming

cognitive and behavioral processes that regulate human social connections.[13] Additionally, studies have demonstrated a link between improved psychological well-being and participation in activities such as yoga and meditation. These activities help reduce stress, anxiety, and depression, while also improving flexibility, cardiovascular health, and overall fitness.[14] Together, these findings highlight the interconnectedness of mental and physical health, suggesting that activities can foster social welfare through the development of new social relationships.

The results of our study will have important implications for the implementation and formulation of strategies in higher education. Our findings underscore the need for funding comprehensive wellness programs that address the diverse needs of students. According to the National Academy of Medicine, life skills development should be integrated across college departments including residential life, student clubs, health promotion, and fitness/recreation, both in and out of the classroom[15]. Universities and colleges must prioritize mental health promotion programs and allocate funds for leisure activities, life skill development, and counselling services.

Limitation and recommendation

The relatively short duration of this study may not fully capture the long-term impact of the intervention on the participants' mental health. The control group will consist of students who do not engage in any health-related activities, but, comparative interference may arise from external factors, such as other mental health challenges not addressed in this study.

To assess the long-term effects of wellness programs on the students' mental health, future studies should measure outcomes over extended periods. This would provide a clearer picture of how the program impacts students in real-world scenarios. To ensure the generalizability of the findings, similar studies should be conducted in various colleges and universities with diverse student populations. For future research, incorporating more frequent follow-ups, incentive, or engaging program elements could help reduce participant dropout and maintain sample size and quality.

Conclusion

Few studies have addressed the importance of implementing comprehensive mental health programs to manage the psychological distress among the students, emphasizing the need for accessible counseling services and the promotion of mental wellness awareness.[16] Our program goes further by incorporating counselling services, students-led initiatives, recreational activities, ultimately having a positive impact on students' psychological wellbeing.[17]

A study highlighted the need for tailored mental health interventions in universities to address the unique stressors faced by students.[18] Our UWP program specifically targets health science students, who experience higher levels of stress and anxiety due to their heavy academic responsibility.[19] Another study focused on providing online mental health counselling and support for the pears[20], while our UWP program offers both daytime and evening face to face counselling. This multifaceted approach aligns with the findings of a study[21] which suggest that incorporating various interventions is effective in reducing stress and improving mental health among the students.

The pilot study suggested that the UWP received high participation rates, with many students providing positive feedback. Participants felt motivated by various activities, such as life skill training and recreation clubs.[22] The inclusion of physical activities, such as dance and yoga, as part of University Wellness Program[23] significantly contributed to reducing the symptoms of depression and anxiety among students.

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Conflicts of interest

There are no conflicts of interest.

References

1. Venkatasubramanian P. University wellness program—A pedagogic innovation to nudge wellness and sustainability among students. Front Public Health 2022;10:844024. doi: 10.3389/fpubh.2022.844024.
2. Richardson A, King S, Olds T, Parfitt G, Chiera B. Study and life: How first year university students use their time. Stud Success 2021;10:17-31.
3. Rodríguez-Romo G, Acebes-Sánchez J, García-Merino S, Garrido-Muñoz M, Blanco-García C, Diez-Vega I. Physical activity

and mental health in undergraduate students. Int J Environ Res Public Health 2022;20:195. doi: 10.3390/ijerph20010195.

4. Fata Nahas ARM, Elkalmi RM, Al-Shami AM, Elsayed TM. Prevalence of depression among health sciences students: Findings from a public university in Malaysia. J Pharm Bioallied Sci 2019;11:170-5.
5. Yusoff MSB, Abdul Rahim AF, Yaacob MJ. Prevalence and sources of stress among Universiti Sains Malaysia medical students. Malays J Med Sci 2010;17:30-7.
6. Orth Z, Van Wyk B. Rethinking mental wellness among adolescents: An integrative review protocol of mental health components. Syst Rev 2022;11:83.
7. Armstrong A, Nagata JM, Vicari M, Irvine C, Cluver L, Sohn AH, *et al*. A global research agenda for adolescents living with HIV. J Acquir Immune Defic Syndr 2018;78(Suppl 1):S16-21. doi: 10.1097/QAI.0000000000001744.
8. Shawahna R, Hattab S, Al-Shafei R, Tab'ouni M. Prevalence and factors associated with depressive and anxiety symptoms among Palestinian medical students. BMC Psychiatry 2020;20:244.
9. Yu J. Research on the intervention and prevention of college students' mental health crisis from the perspective of ideological and physical education. Front Public Health 2022;10:905905. doi: 10.3389/fpubh.2022.905905.
10. Yalman F, Karagöz Y. The impact of people's preventive health behaviour and trust in government performance during the pandemic on their trust in COVID-19 vaccine. Int Sc Vocat Stud J 2021;5:200-9.
11. Pedrelli P, Nyer M, Yeung A, Zulauf C, Wilens T. College students: Mental health problems and treatment considerations. Acad Psychiatry 2015;39:503-11.
12. Bazrafshan MR, Jahangir F, Mansouri A, Kashfi SH. Coping strategies in people attempting suicide. Int J High Risk Behav Addict 2014;3:e16265.
13. Zafeiroudi A. Dance and psychological health: Effect of dance participation on social development. J Soc Sci Stud 2023;10:90.
14. Li X, Lu Z, Liu T, Sun Y. Impact of home quarantine on physical fitness of school-aged children in Xi'an during COVID-19 lockdown: A cross-sectional study. BMC Public Health 2024;24:1169.
15. MacPhee J, Modi K, Gorman S, Roy N, Riba E, Cusumano D, *et al*. Strengthening safety nets: A comprehensive approach to mental health promotion and suicide prevention for colleges and universities. NAM Perspect 2021;2021:10.3147/202106b. doi: 10.3147/202106b.
16. Stallman HM. Psychological distress in university students: A comparison with general population data. Aust Psychol 2010;45:249-57.
17. Biddle SJH, Asare M. Physical activity and mental health in children and adolescents: A review of reviews. Br J Sports Med 2011;45:886-95.
18. Hunt J, Eisenberg D. Mental health problems and help-seeking behavior among college students. J Adolesc Health 2010;46:3-10.
19. Sweet AP, Guthrie JT, Ng MM. Teacher perceptions and student reading motivation. J Educ Psychol 1998;90:210-23.
20. Eisenberg D, Downs MF, Golberstein E, Zivin K. Stigma and help seeking for mental health among college students. Med Care Res Rev 2009;66:522-41.
21. Regehr C, Glancy D, Pitts A. Interventions to reduce stress in university students: A review and meta-analysis. J Affect Disord 2013;148:1-11. doi: 10.1016/j.jad. 2012.11.026.
22. Baghurst T, Kelley BC. An examination of stress in college students over the course of a semester. Health Promot Pract 2014;15:438-47.
23. Jorm AF, Kitchener BA, Sawyer MG, Scales H, Cvetkovski S. Mental health first aid training for high school teachers: A cluster randomized trial. BMC Psychiatry 2010;10:51.