

HS202(2022-2023)

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1. TITLE

"MindEase: An Intervention for Improved Mental Health Management"

2. ABSTRACT/ SUMMARY

Mental disorders are a leading cause of disability worldwide, according to a recent study commissioned by the World Health Organization and the World Bank and India is not far behind in sharing this. If we evaluate developments in the field of mental health, the pace appears to be slow. Dr. Brock Chisholm, the first Director-General of the World Health Organization (WHO), in 1954, had presciently declared that "without mental health, there can be no true physical health". About 14% of the global burden of disease is attributed to neuropsychiatric disorders. The burden of mental disorders is likely to have been underestimated because of an inadequate appreciation of the interplay between mental illness and other health disorders. The COVID-19 pandemic has affected everyone in one form or the other. High rates of depression, anxiety, and stress reaction have been observed in children and adolescents during the pandemic. Addressing these issues includes inter-sectoral coordination and there is a pressing need to focus on the mental health issues of children and adolescents in a more holistic manner. However, there are several challenges in providing adequate mental health support, including a lack of qualified mental health professionals, limited access to resources and infrastructure, and stigma surrounding mental health issues.

In this report, we propose a platform - "MindEase" to connect mental health professionals and volunteers with organisations like schools and colleges and individuals in the community to provide education, resources, and support for managing mental health. The platform will also promote mental health awareness events and initiatives, such as mental health screenings and workshops, to raise awareness and reduce stigma. Here, We also emphasize the importance of early intervention and prevention, with a focus on identifying and addressing mental health issues in schools and colleges. We propose the development of a mental health curriculum that can be integrated into the existing educational framework to help students understand and manage their mental health effectively. By leveraging existing resources

and expertise in the community, we aim to improve access to mental health support and promote overall well-being.

3. DEFINITION OF PROBLEM

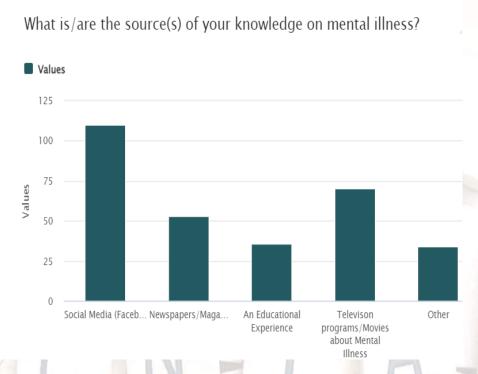
3.1: Problem statement

Anxiety, as well as depression, are the most common mental health issues for children and young adults nowadays, which affect about 20% of children and young people over a lifetime. Today, about 450 million people suffer from a mental or behavioral disorder but in developing countries, it is often taken for granted, unlike other health problems such as flu, cough, etc. There are other major issues in developing countries like food scarcity, etc. and that is why mental health is not usually prioritized. There is no awareness among people about depression or mental health problems. That's the reason people perceive it and cure it as they like. Lack of awareness is also a major cause that its treatment is not normalized. The cure for mental health issues is expensive too. That's the reason people neglect it. Mental health care clinics are not as commonly or easily accessible as other clinics because people usually have very less knowledge about them.

3.2: Origin of the problem/ identification of the problem

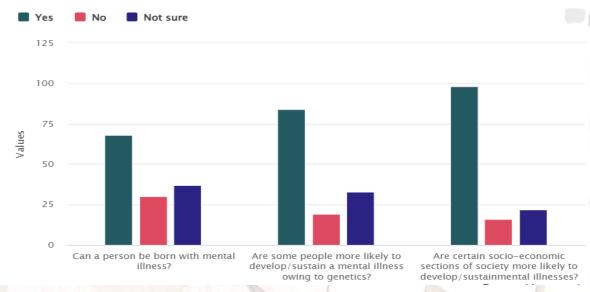
3.2.1: Methodology adopted to identify the problem

We have conducted a survey through google forms in our and some other colleges to identify the problems related to mental health and its causes. And the results from it are given below:->



Perhaps unsurprisingly, the major source of information for respondents, on topics surrounding mental health, was found to be social media (Facebook/Instagram/Twitter/Reddit). Television serials and movies came a close second. Newspapers/magazines trailed in third position, and educational experiences are a dismal fourth in the list of disseminators.

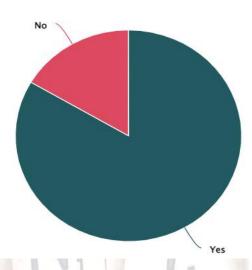
ON GENETIC AND ENVIRONMENTAL FACTORS :->



The response to all three questions in this category was invigoratingly positive. The majority of respondents answered that mental illness did

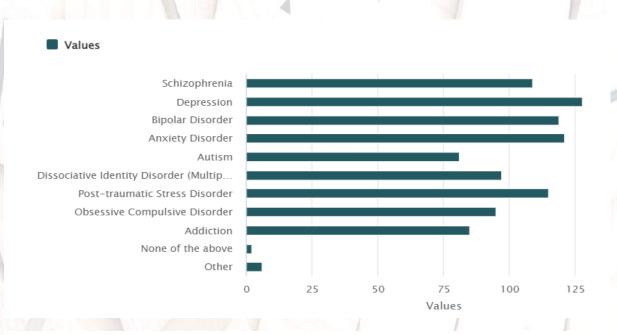
have a genetic and socio-economic component to it. It has been observed that people with multiple family members having a certain disorder are more likely to develop it as well.

Have you at any point of time in your life known a person afflicted by a mental illness?



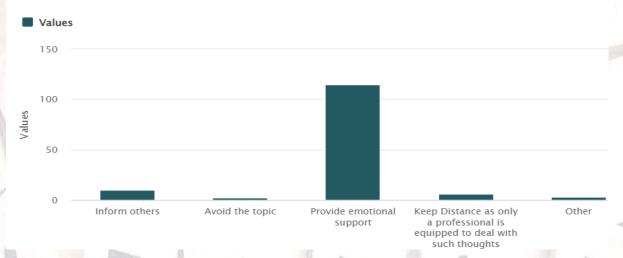
About 83.5% of students in our college have marked yes!!

NEUROLOGICAL DISORDERS:->



RESPONDING TO THE ILLNESS OF A FAMILY MEMBER/FRIEND/LOVED ONE:->

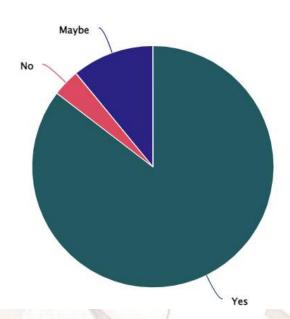
What is an appropriate course of action for a friend who knows about a person's mental illness?



A significant majority of respondents agreed that the best course of action for family members/friends/loved ones would be to counsel the concerned individual to consult a mental health professional. A few respondents, whilst answering for the response of family members, either opted to advise the concerned individual to open up to as many people as possible. Some respondents want to avoid this topic and do not consider mental health as their first priority.

Wellness Center & Literacy Stats:->

Need for more mental health literacy



This analysis has been done for data gathered from a small sample space - it is likely that there will be differences if and when an analysis of more people is done.

A FEW PERSONAL EXPERIENCES SENT AS PART OF GOOGLE FORM→

- "I am bad with people. And I overthink too much. I also have existential crises very often."
- "No one really cares about mental health. They just think if a person looks physically healthy, it means he/she is happy but it's not actually true. Mental health is more important. It also should be focused. Today a high percentage of youth face mental health problems like depression, anxiety, and all. So I think there should be some sessions on mental health by some mental health specialists in institutions so that we students of today's depressive era can learn how to overcome mental diseases."
- "I have body dysmorphia because of which I go to the gym and am still not able to feel good about myself."
- "Ever since I have come to college, I have felt very lonely. Not that I have not tried to make friends, but what can I do? I can't feel others. I always think that no one gives a damn thought about me. "I feel" that others consider "eww" and "miserable" when they look at me. It's like I can never make friends. I don't know if there's anyone for whom my existence makes any difference. Am I meant to be alone all my life? And then, there are some instances when I accept that I will be alone and try to embrace myself and feel happy about what I am."

3.2.2: Surveys discussions

As per the National Mental Health Survey conducted by the National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore in 12 States of the country, the prevalence of mental disorders including common mental disorders, severe mental disorders, and alcohol and substance use disorders (excluding tobacco use disorder) in adults over the age of 18 years is about 10.6%. The major findings of the survey are as under:

- The prevalence of mental morbidity is high in urban metropolitan areas.
- Mental disorders are closely linked to both causation and consequences of several non-communicable disorders (NCD).
- Nearly 1 in 40 and 1 in 20 persons suffer from past and current depression, respectively.
- Neurosis and stress-related disorders affect 3.5% of the population and were reported to be higher among females (nearly twice as much in males).
- Data indicate that 0.9 % of the survey population were at high risk of suicide.
- Nearly 50% of persons with major depressive disorders reported difficulties in carrying out their daily activities.

Mental health illnesses constitute 15% of the global disease burden. As per a report by the World Health Organization (WHO), India has one of the world's largest populations of people with mental issues in one shape or another. Preceding the pandemic, about a billion people lived with a mental illness in 2019 globally, including 14% of the world's teenagers, a proportion that has increased in the last two years by the Covid-19 pandemic. The incidence of already common illnesses like emotional stress, anxiety, and depression increased by more than 25% during the first year of the pandemic alone. In India, more than 80% of people do not seek professional psychiatric assistance. According to the WHO research, "countries spend less than 2% of their health care budgets on mental health on average".

3.3: Detailed description of the identified problem

Mental health problems, also known as mental illnesses, refer to a wide range of conditions that affect a person's thinking, behavior, and mood. Mental health problems can be caused by various factors, including genetics, environmental factors, and life experiences.

- Depression is a common and serious medical illness that negatively affects how you feel, the way you think, and how you act. Depression causes feelings of sadness or a loss of interest in activities you once enjoyed.
- Anxiety disorders are characterized by excessive worry and fear that interfere with daily life.

 Eating disorders are mental health problems characterized by abnormal eating behaviors that can cause physical and emotional Health Problems.

Mental illness is often stigmatized and misunderstood. People feel ashamed or embarrassed to talk about their struggles, or they may fear being judged or discriminated against and it is due to lack of social acceptance of people towards mental health.

- Some people may be afraid of seeking treatment for mental illness because they worry about the stigma associated with mental health treatment or the potential side effects of medication.
- 2. Some people may not have access to mental health resources, such as therapists or mental health clinics, due to financial, geographic, or other barriers.
- 3. Some people may deny or minimize their mental health problems, either because they don't recognize the severity of their symptoms or because they don't want to confront the issue.

It's important to remember that mental health is just as important as physical health, and seeking help for mental health issues is a sign of strength, not weakness.

3.4: Current developments in the domain

The government of India has taken several steps to improve mental health in the country.

- The government has launched the NMHP to provide mental health services, promote mental health awareness, and reduce the stigma associated with mental illness.
- Mental Health Policy: The government has implemented the Mental Health Policy, which aims to promote mental health, prevent mental illness, and ensure that people with mental illness receive appropriate care and support.
- The government has established several helplines, such as the National Institute of Mental Health and Neuro-Sciences (NIMHANS) helpline and the Arogya Sahayavani helpline, to provide crisis support and counseling services to people experiencing mental health issues.

 The government has passed the Mental Health Act, which seeks to protect the rights of people with mental illness and ensure that they receive appropriate treatment and support. The act also decriminalizes suicide and promotes the integration of mental health into primary health care.

3.5: Need and significance of resolving the problem

Mental health issues affect people's overall well-being, daily functioning, and quality of life. Untreated mental health issues can lead to a range of problems, including difficulties in relationships, work performance, and physical health. The need to solve mental health issues is crucial because they can have a severe impact on individuals and society as a whole. Some of the consequences of untreated mental health issues include substance abuse, homelessness, poverty, suicide, and self-harm. Treating mental health issues can also help individuals to develop coping strategies, improve their self-esteem, and enhance their ability to manage stress, anxiety, and other emotional states. This, in turn, can lead to improved productivity, creativity, and overall happiness. Therefore, solving mental health issues is a crucial step toward achieving a healthier and more equitable world.

4. GOALS PERTAINING TO MINIMIZING THE GAP

- The requirements of people with mental illnesses cannot be satisfied by the health sector alone; there is a need for cross-sectoral cooperation, such as between specialized mental health and general health services as well as the education, employment, and social care sectors outside the health sector.
- Education: Raising awareness of mental illness might inspire people to seek assistance by enabling them to see the early warning signals in both themselves and others. Mental health education should be a part of the curriculum in schools and colleges.
- Taking care of underlying social problems: Resolving underlying social problems like poverty, prejudice, and inequality can also reduce the disparity in mental health. Addressing these problems can help those affected by them experience better mental health. These problems can cause tension, anxiety, and sadness.

- Accessibility: Improving access to mental health services is crucial
 in reducing the gap in mental health. Governments and health
 organizations should make investments in expanding and
 universalizing access to mental health care.
- Increase research and funding: More research is needed to understand the causes of mental health disparities and to develop effective interventions. Increasing funding for mental health research can help identify the best ways to address mental health disparities.

5. TOOLS AND TECHNIQUES PERCEIVED TO BE EFFECTIVE

Our proposed solution consists of both community and individual based methods to raise awareness and treatment of mental health issues and an online platform for users to connect with mental health professionals and to also explore self help.

These are the following tools and techniques of proposed solution which can be perceived to be effective if used in solution methods:-

1. Community-Based Mental Health Programs:

Community-based mental health programs have been found to be effective in addressing the mental health needs of individuals, families, and communities. These programs can include a range of activities such as support groups, psychoeducation, skill-building workshops, and outreach programs. They can be delivered in a variety of settings, including community centers, schools, and institutions. Such programs are usually provided by mental health professionals, trained volunteers, or a combination of both.Community-based mental health programs can also help reduce stigma associated with mental health and increase awareness about mental health issues.

2. Psychotherapy:

Psychotherapy is a form of talk therapy that involves working with a mental health professional to address mental health issues. It can be provided in various formats, such as individual therapy, group therapy, or family therapy. There are different types of psychotherapy, including cognitive-behavioral therapy (CBT), interpersonal therapy (IPT), and psychodynamic therapy. Psychotherapy can also be used in combination with medication for more severe mental health conditions.

3. Self-Help Strategies:

Self-help strategies can be used to manage mild to moderate mental health conditions, such as stress and anxiety. These strategies can include techniques such as mindfulness, meditation, exercise, and journaling. They can also involve self-help resources such as books, websites, and apps. Self-help strategies can also be a cost-effective and accessible way to manage mental health.

6. DETAILED WORK PLAN

Our work plan consists of three stages for implementing the Mental Health Management program at both individual and community levels, specifically in schools and colleges. We plan to use an application-MindEase as our platform for providing mental health resources and support. The three stages of our work plan are as follows:

Stage 1: Awareness and Sign-up

In this stage, our primary goal is to create awareness about the importance of mental health and the need for proper management of mental health in schools and colleges. We will approach schools and colleges and encourage them to sign up for our program and explain to them the benefits of our program and the resources which we will provide. We will connect them over the Organisation login feature of our platform-MindEase. We will also reach out to individuals interested in volunteering as mental health advocates and provide them with the necessary training. We can start this stage at our college with collaboration with Snehita wellbeing cell and other clubs.

Stage 2: Connecting and Offering Choices

Once we have successfully signed up organisations, individuals, mental health professionals and volunteers, we will connect them

over our platform. Our platform will offer various choices for users to select from and work along with. Additionally, we will link the users with qualified mental health specialists who can offer counseling and psychotherapy. The services that best suit the needs and preferences of the users will be available for selection.

Stage 3: Schedule and Regular Monitoring

Our main objective at this stage is to raise awareness of the value of mental health and the necessity of effective mental health management in schools and institutions. We will speak with schools and colleges to encourage them to enroll in our program and to explain its advantages as well as the resources we will offer. Additionally, we will get in touch with mental health professionals interested in volunteering to collaborate with our platform.

To develop and maintain our platform, train volunteers, and plan mental health events, we will need financing. We intend to raise money through sponsorships and donations.

7. NOVELTY OF PROPOSED INTERVENTION

Our proposed intervention consists of many things, both at the Community level and Individual level, and the novelty in all these is our Platform MindEase. While there are existing mental health services and interventions, MindEase offers several unique features that set it apart.

Firstly, Our Mental Health Management platform -MindEase will use technology to provide an easy-to-use environment for users, including children, adults, college students, working professionals, and more. Users can input their mood, physical health, and daily activities to receive personalized recommendations for managing their mental health. This app will also offer personalized community forums and a general resources section, allowing users to connect with others and access curated mental health resources at any time.

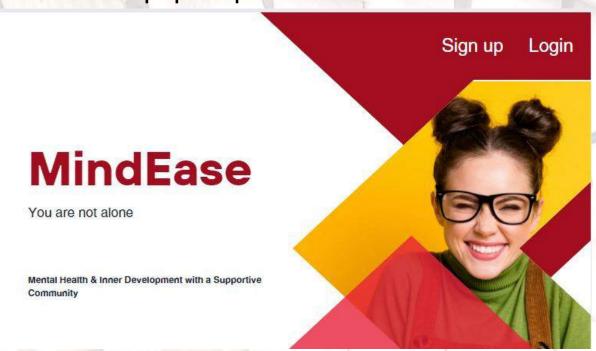
Secondly, MindEase will focus on prevention rather than just treatment. MindEase's goal is to help individuals and organizations manage their

mental health before problems arise. By offering personalized recommendations and resources, users can work to maintain good mental health even in their good times. MindEase also offers personalized access to mental health professionals, yoga trainers, and organizations, allowing users to interact with experts in the field and receive personalized guidance.

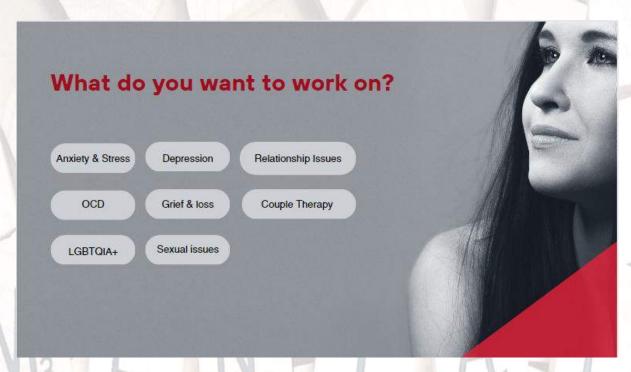
Finally, MindEase offers a unique emphasis on community involvement. The app's community forum provides a safe and supportive space for users to connect with others who may be experiencing similar mental health issues. This emphasis on community involvement can help users feel less alone and more supported in their mental health journeys.

Overall, MindEase's unique features and emphasis on prevention make it a novel approach to mental health management. By providing personalized recommendations, resources, and community support, MindEase can help individuals and organizations manage their mental health more effectively.

Wireframe of our proposed platform:



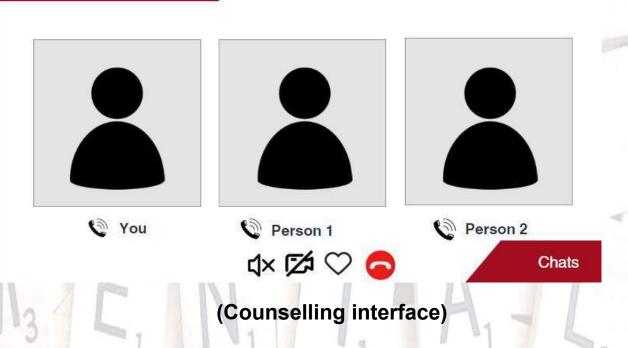
(Homepage)



(service page displaying available options about which you want to work on)



(Resource window)



8. APPROACHES THAT COULD BE TAKEN TO IMPLEMENT

Before developing such a proposed solution like MindEase it's important to research the market and understand what users want from a mental health management app. We conducted a survey in our institute to gather information about the mental health status of the students. We also plan to start raising awareness about mental health within our own college, IIT Ropar, through events and collaborations with our Snehita Well Being Club. This will create a supportive, understanding, and informative environment about mental health and issues related to it. Once we have successfully implemented the intervention at the small scale, we plan to expand to other organizations in a similar way. This approach will allow us to tailor the intervention to the specific needs and culture of each community and build trust and buy-in from the community. We believe that this approach will be more effective in creating a sustainable and meaningful impact on mental health

Along with all these, We will also be defining our target audience which will help us in designing our app -MindEase that meets their users' needs. Common features of MindEase will include self care tools, mood tracking, cognitive-behavioral exercises, mindfulness exercises and social support. We have to collaborate with mental health professionals to ensure that our app is providing accurate information and resources.

Mental health is a sensitive topic, so it's important to ensure that user data is kept confidential and secure. Once we have developed our app, it's important to test it with users and iterate based on feedback. This will help us to identify any usability issues or bugs, and to refine the features to better meet the needs of the users. By continuously improving MindEase, we hope to make it a valuable and accessible tool for managing mental health for individuals and organizations alike.

9. POSSIBLE CONSTRAINTS AND DESIGN ISSUES

There are several possible constraints and design issues that could affect the implementation of our intervention, both at the level of the app and the community programs we plan to organize.

One major constraint that we may face is financial constraints. Developing and maintaining a high-quality mental health management app requires significant resources, including software development, hosting, and ongoing updates. Similarly, organizing community programs and mental health professional training can be costly. To overcome this constraint, we may need to seek funding from external sources such as government grants, philanthropic foundations, or private investors. Alternatively, we may need to limit the features of the app to fit within our budget constraints.

Another possible constraint we may face is privacy concerns of users. Mental health is a sensitive topic, and users may be hesitant to share their personal information, even anonymously. We will need to ensure that the app has robust privacy policies and encryption to protect user data. Similarly, in community programs and mental health professional training, we will need to respect the privacy of participants and maintain strict confidentiality.

Cultural barriers may also pose a challenge in implementing our intervention. Mental health is often stigmatized in many cultures, and

individuals may be reluctant to seek help or participate in mental health programs. We will need to engage with local communities and cultural leaders to understand their perspectives on mental health and tailor our approach to be culturally sensitive and appropriate.

Another design issue we may face is the lack of engagement from schools, colleges and other such organisations. Despite the increasing awareness of mental health issues, many educational institutions do not prioritize mental health programs or activities. It may be challenging to convince them to include our app and community programs as part of their curriculum. We may need to develop a persuasive case and offer incentives to encourage their participation.

In summary, there are several possible constraints and design issues that we may face in implementing our intervention. However, we believe that with careful planning and a flexible approach, we can overcome these challenges and make a meaningful impact on the mental health of individuals and communities.

10. EXPERTISE AVAILABLE WITH EACH STUDENT

Our project team consists of five students - Khushboo, Nandini, Niroopma, Ishu, and Unnati. All of us are mental health enthusiasts, which makes us passionate about this project and this is the primary reason for coming up with this project idea. Khushboo, Nandini, and Niroopma are CSE students with programming skills, which will be essential in designing and implementing our mental health management platform - MindEase. While Ishu and Unnati are from chemical engineering but have a keen interest in web development also. They also have interests in organizing events and working with volunteers in social programs, which makes them great for engaging purposes.

To finish this project, however, we worked in accordance with our interests. Website frontend designing was handled by Unnati. Nandini handled data collection by surveys. Khushboo, Ishu and Niroopma have project management, literature review, Research and evaluation experience. Together, We five were successful in compiling the information needed to pinpoint the issue and generate a variety of solutions.

11. SUGGESTED PLAN OF ACTION

Suggested plan of action for the implementation of our mental health management intervention involves the following steps:

- 1. Involvement of Snehitha Well-being Cell: As we know IIT Ropar has a dedicated system to cater the mental health and counselling needs of the students, faculties and staff. So, we will first try to make this cell more active and popular among all to create a proactive and preventative environment for mental healthcare in the campus. This cell will organize various awareness programs, workshops, and sessions on stress management, coping strategies, and other mental health-related topics regularly.
- 2. Use of MindEase App: MindEase, our mental health management app, will be promoted among students and faculty members. The app provides various features like mood tracking, self-help resources, and therapist connect, which will help people at the individual level to manage their mental health. This will have a separate organisation login section where updates related to their well being cell could also be posted regularly.
- 3. Collaboration with Psychiatrists and Mental Health Professionals: We will collaborate with psychiatrists who can use the MindEase app to connect with their patients and provide them with remote counseling and support. This will help people in remote areas or those who are unable to visit the doctor due to various reasons. At organisation level logins, users can also take online or offline appointments. We will also organise regular webinars and workshops with them to educate the community about mental health issues and ways to manage them.
- 4. Collaboration with Yoga Trainers and Influencers: We will collaborate with yoga trainers, fitness influencers, and other organizations working in the same field to create awareness about the importance of physical activity and its role in promoting mental health. They will be encouraged to use the MindEase app to provide personalized fitness and yoga plans for their clients. It will assist their connectivity also.
- 5. Monitoring and Evaluation: We will regularly monitor and evaluate the success of our intervention through feedback from users and data

analysis. This will help us to improve our intervention and identify areas that need improvement.

6 . And we will keep trying to extend the scope of our intervention to a larger and larger audience by adding new features to our platform and organizing different sets of programs .

12. EXPECTED OUTCOMES

Our intervention in mental health management aims to create a supportive and informative environment about mental health and related issues through our app and awareness program. We are expecting the following short-term and long-term impacts on individuals, communities, and society as a whole:

Short-term impacts:-

- Increased awareness of mental health issues among students and faculty members and the importance of seeking help when needed.
- Increased engagement of mental health professionals and our Well-being cell in promoting mental health
- Reduction in stigma surrounding mental health through open conversations and sharing of personal experiences.
- Improved mental health literacy among individuals, enabling them to identify symptoms and seek help when necessary.
- Improved access to mental health resources through our app, providing users with helpful tools and information to manage their mental health.

Long-term impacts:

- Reduction in the prevalence of mental health problems through early identification and intervention, leading to better academic and work performance.
- Improved overall mental health and well-being among individuals and communities.

- Increased support and understanding for individuals with mental health problems.
- Improved access to mental health services and resources across society, especially in remote areas.
- Reduction in the social and economic costs associated with untreated mental health problems.
- Improved physical health and well-being of individuals, leading to a healthier society.

Overall, our intervention in mental health management aims to create a positive impact on individuals, communities, and society as a whole by promoting mental health awareness, reducing stigma, and improving access to mental health resources.

13. CONCLUSION

In conclusion, our intervention in mental health management aims to raise awareness about mental health and provide individuals with the necessary tools to manage their mental health effectively. Our platform, MindEase, serves as a mental health management app that connects individuals with mental health professionals and similar experiences in community forums and has other features too. Our plan of action includes working closely with the Snehita WellBeing Cell of our college and implementing various sessions and programs to educate individuals about mental health. By doing so, we hope to make mental health a priority in our community and promote overall well-being. The potential impact of our intervention includes reducing the stigma around mental health, increasing access to resources, and helping individuals to better manage their mental health and thus promoting a healthy and happy environment for individuals, communities, and society as a whole. Through a strategic plan of action, we can implement our intervention and monitor its success, making adjustments as needed to ensure it is effective and impactful.

14. CONTRIBUTION

KHUSHBOO GUPTA (2021CSB1105)	 Novelty of proposed intervention Possible constraints and design issues Expected Outcomes
NANDINI MUNDHRA (2021CSB1113)	 Abstract/Summary Definition of Problem Survey Data Collection
NIROOPMA VERMA (2021CSB1115)	 Detailed work plan Approaches to implement plans Conclusion
UNNATI SINGH (2021CHB1059)	 Suggested plan of action Wireframing of the proposed platform
ISHU (2021CHB1045)	 Tools and Techniques perceived Goals pertaining to minimizing the problem

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