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# Mental Health Tracking Application

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**Abstract.** According to a survey over 90% of common mental health issues are left untreated in India. To start with, observing what's left untreated or unseen, influences your psychological state is how you think or feel, or behave in your way of life. It also affects your ability to deal with stress, overcome challenges, build relationships, and get over life's setbacks and hardships. Research between 2017-19 shows that over 24,000 adolescents within the age bracket of 14-18 years became victims of suicide, various reasons must have led to that decision but boiling down to one point is mental health. There exist many websites which aim to assist and deal with psychological state suffering but most of them need subscriptions to be accessed and other free websites, lack features. This project aims to be cost-free providing the user with many features through which the user can simply track his/her mental health on a daily/weekly/monthly basis; it is not necessary that the user has to be depressed to use this website. We want people to look at mental health just like physical health, just as we treat our wounds. Our body pain and mental health are nothing different but a part of our body that needs care and just as physical wounds worsen if left untreated so does mental stability. Even before registering on the website, he/she can take an analysis test which is MCQ-type questions and after collecting the answers the website will display the result, then it is up to that person to proceed with the registration or not. Further after the registration, based on how the user answers to various questions asked he/she will be assigned a few tasks which can gradually help him/her to overcome his problems or simply brighten up his/her mood. There can be a third person involved to keep a watch if the tasks assigned are being completed. In the future, there can be instant doctor support, group support. The user only needs a stable internet connection and a device where he/she can open the website and start using it.

## I. INTRODUCTION

The thought of feeling burdened or depressed and constant concern of contracting the virus and plenty of alternative things, simply sharing this thought with friends make us feel lighter and even raving regarding things can be a way of clearing the litter in our mind and getting back to grind. Throughout the primary wave of the pandemic in 2020, a survey for 4000 adolescents was conducted out of that a fraction of the respondents had reported being anxious and troubled. The cause was totally different for various age teams and conjointly inside the teams. Those who are emotionally and are mentally resilient have the tools for handling tough things and maintaining a positive outlook. **They continue to be targeted, flexible, and productive, in unhealthy times.**

Resilience makes them less fearful of new experiences or precarious futures. This can be what has impelled us to assist others to keep the enthusiasm for living and also the ability to laugh and rejoice.

A strong mental state isn't simply the absence of mental state issues. Being mentally healthy or keeping the spirit high is way over being free from depression, anxiety, or alternative psychological problems. Instead of the absence of psychopathy, mental state refers to the presence of positive characteristics. **Having a solid mental state doesn't mean that you simply did not bear unhealthy times or expertise emotional issues.** We tend to all bear disappointments, loss, and change. And whereas the traditional elements of life, will still cause disappointment, anxiety, and stress. However even as physically healthy folks can pick up from ailment or injury, folks with a robust mental state are able to pick up from adversity, trauma, and stress.

## II. THEORY

### Literature review

As Student mental health in higher education has been an increasing concern. The COVID-19 pandemic situation has brought this vulnerable population into renewed focus; hence this study aims to conduct a timely assessment of the effects of the COVID-19 pandemic on the mental health of college students. They conducted interview surveys for about 1 month after the stay-at-home order with 195 students. From this survey, it is found out that about 71% indicated that their stress and anxiety had increased due to the COVID-19 pandemic, and found out that among various reasons majority of the students were experiencing an increase in the level of fear and worry because of their health and the

health of their loved ones. To cope with this, they were mostly using self-management tools. The result they got is due to the long-lasting pandemic situation and onerous measures such as lockdown, the COVID-19 pandemic brings negative impacts on education. Our findings from this study indicate the urgent need to create interventions and preventive strategies to address the mental health of college students. [1]

This research implies that extending patient portals to mental health care, particularly low-risk therapies, could be beneficial. Patient portals have the potential to increase access to mental health services in the previous paper as the students were using self-management tools one of those tools is the use of mental health portals. In this paper, we shall see the expectations of student users from the portal. The expectations and attitudes of stakeholders (student service users and health providers) regarding the expansion of patient portals into a New Zealand university-based mental health service were investigated in this study. They used an action research approach with both the student users and the staff of the counseling service. The key findings are the portal has to be user-friendly, because if it is not user-friendly then only those users could book an appointment who are easy with the tech. The staff was concerned about the counselor hoping that is the counselor assigned to the user should remain the same for all the appointments. The triage process should be included meaning if the counselor is having a lot of appointments on the same day the degree of urgency should be taken into consideration and as per that the appointments should be scheduled. There should be a feature called notes because it happened that the users after coming out of the appointment forget what they discussed or even during the week they forgot what they were asked to work on. Our implementation from this research is all of the few findings they got from the survey. And filling the gap from the study that the users could not use the portal then and there during the time of distress, the users can access the website whenever they want and as they will be needing quick solutions, we have provided links mentioned which have recommendations and tasks for them which can help them calm for that moment. [2]

The paper gives detailed insights on how Mount Sinai Health System in New York City created an app to address the current and anticipated psychological impact on health care workers (HCWs) due to COVID - 19. The primary features were based on the mental health assessments and needs of Health Care Workers. Users complete conventional mental health assessments, which are followed by score-based feedback that includes numerous resilience-building exercises. Progress is visualized over time based on individual survey scores, allowing users to track their mental health. Based on the score, the user receives feedback (good/cautionary). If a user scores in a way that suggests a need for mental health care i.e., cautionary then a list of available resources and tools were shown on the screen. Users can write personal digital journals, view videos/ music that helps them in relaxing. From the side of the system, some material was also included. Resources in the app—videos and referral resources—serve as reinforcement and added support if desired. The limitation of the system was that users may be already biased or inclined towards using a specific tool, leading them to search for a tool-based app. [3]

The study is based on MOST+, an app that combines real-time Webchat counseling from a therapist, interactive user-directed online therapy, expert and peer moderation, and private and secure peer-to-peer social networking. MOST+ was created to provide young people with anonymous, evidence-based, and short-term mental health care 24 hours a day, 7 days a week. Users will fill out an online survey and based on the result they were segregated into two categories low and high risk. The high-risk were given partial access and the low-risk were given complete access. In partial access users, were blocked from social networking. For low-level moderation of groups 'Super users', who are active users will provide peer-to-peer support and foster hope and empowerment on the social network. [4]

ADHD is young and characterized by attention issues and disabling the (COVID19) mental health pandemic. Adolescents and young adults (A /YA) with ADHD are at risk of major disorders such as school failure, major depression, and exacerbation of pandemic-related symptoms, according to the findings. In the case of ADHD (compared to children), exacerbation of symptoms, increased pandemic-related severity of ADHD, and/or a poorly structured online process that supports self-learning. The risk of pandemic-related postponements can be particularly high. The pandemic can be a mismatch similar to that seen in the transition to ADHD in a highly structured adolescent. During the COVID19 pandemic, ADHD symptoms are segregated for teens with ADHD, as they can be exacerbated by increased levels of stress and family confusion that can occur during the COVID19 pandemic, which is more difficult. A study of the severity of ADHD and the consequences of stress when a person with ADHD is exposed to high levels of stress there is an exacerbation of A / YA symptoms and disability in ADHD. Outbreaks of major psychiatric and behavioral health problems are one of online learning for students vulnerable to COVID19-related social distance and comorbidities of quarantine or episode development, especially in A / YA of ADHD. An important protecting factor for adolescent substance use in adolescents with ADHD. This may decrease with the transition to increase during

COVID19 as a result of confinement, and adolescent depression experiencing pandemic magnitude. Some speculate that COVID-19 pandemic-related changes may improve ADHD symptoms by introducing flexible schedules and greater personal space and tranquility during home learning compared to school. Shockingly, the subgroup at most elevated danger for Coronavirus pandemic-related top issues intensifications was a youth with high intelligence levels. Even though some exploration proposes that people with ADHD and high intelligence levels exhibit more determined types of the problem, most work proposes that a high level of intelligence mitigates ADHD seriousness and advances positive anticipations. Post investigations showed that a higher level of intelligence was essentially related to reports of higher family struggle during the Coronavirus pandemic. The restrictions of this study incorporate their example of comfort, which may insufficiently address the full populace of young people with ADHD (e.g., teenagers with comorbid Mental imbalance Range Problem, European-American young people, youths getting energizer medication, young people with serious ADHD manifestations). Furthermore, a report of pre-pandemic working required a review of up to three months. Review announcing is more inclined to reveal mistakes than tentatively gathered information. Some indicator factors (e.g., ADHD subtype, intelligence level) were estimated at the pattern (~three years before Coronavirus 19). However, solidness in these factors after some time is normal, it is conceivable that adjustments of these factors that happened in the review's follow-up period were not reflected in their investigations. Examinations incorporated A/YAs in center school, secondary school, and school scholastic conditions; although they tracked down no impacts old enough on results, future work with bigger examples is expected to see how school setting may impact the impacts in this. They did exclude a non-ADHD examination bunch in this review, which would have clarified whether concentrating on discoveries was explicit to ADHD. Since members finished Tp (T peak) evaluations in a study design, reactions were not evaluated for adequacy at the hour of organization. Albeit no witness had every one of the three of their top issues rejected, the method prompted an avoidance of 5.4% of parent reactions and 12.8% of A/YA reactions. In this way, some members normal TP scores depended on under three top issues. They likewise didn't request that respondents name their three top issues quickly preceding the pandemic. Subsequently, they could not finish up whether pre-pandemic top issues deteriorated, or regardless of whether new top issues jumped the old in seriousness. At long last, they didn't gather pre-pandemic ADHD manifestation evaluations that would have facilitated mediational models that straightforwardly test whether pandemic-related intensifications in top issues are an instrument of ADHD indication accelerations. [5]

Mental health problems are a growing concern among university campuses. The foremost common mental state complaints among university students are anxiety and depression. School students are "a special cluster of individuals World Health Organization having an essential transition amount from adolescence to adulthood which might be in an exceedingly the foremost disagreeable times in a person's life". The target of this analysis paper is to look at the associations and interactive effects of physical activity and sleep quality on mental state among Indian college students. The globe Health Organization (WHO) has known positive mental state as a state of well-being, each emotional and psychological, wherever the individual acknowledges his or her potentials, adapts to the natural pressures of life, leads productive and ancillary work and meets the stress of lifestyle. Smart mental state isn't solely the non-occurrence of mental disorders however conjointly includes active behaviors like taking steps to keep up overall health and dealing well inside the community. It's been found that depressive symptoms adversely impact the educational performance of scholars. The info was collected victimization the questionnaires administered to students of various departments of Jamia Millia Islamia, India. The 3 questionnaires (HADS, IPAQ-SF, and PSQI) were distributed to a convenience sample of 649 participants. The 649 participants were screened supported their eligibility for inclusion within the study. 617 participants met the inclusion criteria for the study. Of the 32 participants of World Health Organization were excluded, nineteen were excluded as a result of they failed to meet the inclusion criteria, whereas the remaining thirteen were excluded thanks to improper completion of the questionnaires. Depression and anxiety symptoms are the foremost ordinarily reportable difficulties among those that are diagnosed with mental state. The investigators, therefore, believe that the alternative of faculty students was acceptable seeable of the broader generalizability of mental state problems that are old throughout the university-age years. Association between physical activity and mental health were forever positive, in spite of the intensity of activity. Hence, all physical activity sorts were either positively related to emotional well-being or reciprocally associated with psychological complaints like depression and anxiety. In terms of the association between physical activity and mental state, current proof suggests that physical activity is used as a very important intervention within the treatment of mental state disorders. Moreover, physical activity is a good strategy to help in reducing negative emotions and therefore could represent a method for promoting better mental state among nonclinical teams. A recent meta-analysis of the impact of physical activity on depression and anxiety in nonclinical adults showed that physical activity moderately diminished depressive symptoms as well as anxiety to a lower however yet important extent. Exercise has been found to realize a bigger reduction in depressive symptoms than no treatment, placebo, or different interventions such as meditation. Taken along these findings were understood to support the

conclusion that exercise is moderately simpler than a bearing intervention for reducing symptoms of depression. Earlier analysis has shown that sleep disturbance is expounded to poorer mental state results from childhood to adulthood (including additional depression, anxiety, and aggression behaviors). The confirmed associations between sleep and mental health are investigated among adolescents and young adults. A study reportable that regarding 67 of adolescents with several disturbances in sleep (such as bother falling asleep, remaining asleep, and waking early) were diagnosed as having a DSM (Diagnostic and applied math Manual of Mental Disorders)-related anxiety or depressive condition. Poor sleep quality has been corelate with multiplied rates of rule breaking behaviors, aggressive behaviors, depression, and anxiety. The findings counsel that students could have the benefit of support systems for rising the mental standing of the scholars improving header skills. [6]

Health outcomes are heavily influenced by lifestyle choices. As a result, examining aspects linked to a healthy lifestyle is critical for health promotion. Compassion for oneself is chained to kindness for others. However, research on the function of self-compassion in health habits is lacking. Aspects (self-kindness vs. self-judgment, common humanity vs. individual humanity, etc.) There is little research on the effects of solitude, mindfulness, and over-identification on health practices. A total of 423 Turkish undergraduates finished their studies. The Self-Compassion Scale and the Health-Promoting Lifestyle Profile II are two tools that can help you live a healthier lifestyle and are used as measures for the research. Self-kindness, humanity, mindfulness, and general self-compassion, rather than self-criticism, remoteness, or over-discrimination, were all positively associated with health behavior. Mindfulness, self-kindness, and self-judgment were found to be significant predictors of health behaviors in a hierarchical multiple regression analysis. The goal of this research was to see if there was a link between self-compassion qualities and health-promoting activities. After adjusting for gender and age, only self-kindness, mindfulness, and self-judgment were found to be significant predictors of health-promoting activities. Self-kindness was discovered to be the biggest predictor of health behaviors and makes it easier to engage in self-care activities. People who are self-kind would give calming and acceptance to themselves while monitoring and altering health habits from a self-regulatory perspective. Self-judgment, on the other hand, may be linked to difficulty in adjusting health practices due to the emotional cost of severe self-criticism. Furthermore, because of a tendency to overlook positive elements of health-related actions, self-judgmental persons may have a negative bias toward themselves while monitoring health habits. Mindfulness was shown to be the third most important predictor of health behavior in this study. Mindfulness can assist in better regulating health habits. Self-kindness, humanity, and mindfulness, the three primary components of self-compassion, were found to be favorably connected with health-promoting activities. People who are compassionate and understanding of themselves rather than brutally judgmental of themselves, who consider their experiences as a natural part of being human, and who are cognizant of their unpleasant sentiments have more beneficial living practices. When people act in ways that are detrimental to their health, they can make social comparisons and feel guilty. Over-identification with negative emotions arising from social comparisons may, ironically, have a favorable effect on healthy living practices in this situation. The current study found that self-judgment and isolation were both positively correlated with spiritual growth, interpersonal relations, and stress management subscales of health-promoting behaviors, while overidentification was also positively correlated with spiritual growth and stress management subscales. There are numerous obstacles to the contemporary look. Health behaviors have been measured by the usage of a self-file instrument. It isn't viable to generalize the look at findings since that is a single-targeted look. The affiliation among self-compassion components and fitness behaviors ought to be investigated throughout special age businesses in future studies. It is likewise advised to recognition on elements that likely mediate or moderate the connection among self-compassion and fitness behaviors to show the mechanisms underlying this dating from a theoretical perspective. [7]

### III. METHODOLOGY

Upon clicking on the URL for the website in a browser user will be redirected to a landing page, this page depicts information on stress management and detection of ADHD. From here users can take the survey test directly or log in using a username and password and then take the survey test.

The survey test will be focusing on stress and ADHD detection. Here, the user will be asked to answer the multiple-choice based questions, based on the answer a report will be generated and messages will be shown as high stress, moderate stress, low stress, etc. Users can take survey tests as many times as they want to, to be sure of the result.

After logging in users will be redirected to Dashboard, where users can take surveys, view reports for previous surveys, visit Cafe to interact with peers, self-track their mood, and edit Profile.

In the self-tracking session of the dashboard, there will be questions that will detect users' moods, based on the data there will be a visual representation of daily, weekly and monthly moods, based on which users can take actions to balance their moods/ mental health. The cafe will be a forum where each individual can share and help others to cure/ balance mental health.

#### IV. RESULT AND DISCUSSION

The proposed system is the website will have a set of questions that everybody can answer before the registration which will help them with the analysis and based on the analysis, they can decide whether to proceed with the registration or not. If yes, after the registration the user can take up the analysis whenever he/she wants to and all of it will be stored which makes analysis easier. As we focus on stress/anxiety and ADHD relevant information will be provided for the users to read and understand about it. The users can be a part of peer-to-peer support i.e., café feature if he/she wishes to where they can share how they feel or what are their thoughts at the moment or what has helped them recover. After answering the questions, the user will get the result in graphical format. There will be tasks or suggestions available on the website which can be performed by the user to release out the stress or get out of that restlessness or just to remain calm.

#### V. CONCLUSION

We have seen a sharp rise in mental health problems during this pandemic and also there is a rise in suicide rates as 90% of the mental health problems are left untreated. Hence, we have come up with this website free of cost as many of the mental health-related websites present out there ask for money. The website will have suggestions and tasks to manage symptoms and a forum where people can share their thoughts and have a healthy conversation. Our objective is, eventually by following the suggestions or just keeping track of their progress or making daily reports the user can prevail not getting into worse situations and also understand that it is normal to keep a check on their mental health and spread the word.

#### VI. FUTURE SCOPE

Currently, the project aims to help everyone under stress to stabilize their mental health. Its future aspect can be to focus on a specific group of audience based on various factors (age, gender, profession, etc.) so that their problems can be more easily found and the solutions provided can be more accurate. As of now, the website does not focus on people with major mental health issues for which a 24\*7 professional team can be assigned. Currently, the project focuses on two of the many mental health issues, in the future other issues such as OCD, PTSD, etc. can be added and dealt with.

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