

MindGuardian

A proactive technology mobile application designed to **detect + prevent** depression and other mental health related challenges.

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North Star: Leveraging Technology to Address/Mitigate Chronic Stress and Depression in Daily Lives through early detection + prevention AI strategies.

The wider economic costs of mental illness in England have been estimated at **£105.2 billion each year**. This includes direct costs of services, lost productivity at work and reduced quality of life.

Executive Summary:

In today's fast-paced and interconnected world, individuals face an array of stressors emanating from diverse sources, including financial pressures, strained relationships, societal issues, and political challenges. Chronic stress and depression have become pervasive, adversely affecting the daily lives and overall well-being of a sizeable portion of the population. Recognizing the urgency of addressing these mental health concerns, there is a critical need for innovative generative AI solutions that leverage technology to proactively; **predict, identify, manage, and mitigate** the triggers contributing to chronic stress and depression.

Depression in the UK:

- According to the Office for National Statistics (ONS) in the UK, in 2019, it was estimated that around 1 in 5 adults experienced some form of depression during that year.
- The Mental Health Foundation reported that depression is more common among women, with 1 in 4 women experiencing a mental health problem compared to 1 in 6 men.

Suicide in the UK STATS:

- According to the ONS, in 2019, there were **5,691 suicides** registered in the UK, representing a rate of 11 deaths per 100,000 population.
- The suicide rate was higher among males, with 16.8 deaths per 100,000 population, compared to females with 5.2 deaths per 100,000 population.
- The highest suicide rate was observed in men aged **45 to 49 years**.

Please NOTE: For the most current and specific data, it's recommended to refer to official reports from organizations such as the Office for National Statistics (ONS), Public Health England, or mental health organizations in the UK. These organizations regularly update their statistics and provide comprehensive insights into the prevalence of depression and suicide in the country.

Problem Description:

1. Prevalence of Chronic Stress and Depression:

- Many individuals experience chronic stress and depression due to a myriad of **MACRO and micro** factors in their daily lives. Some can be controlled, others cannot.
- Traditional approaches to mental health support often rely on reactive measures rather than initiative-taking interventions.

2. Identification of Triggers:

- Triggers for stress and depression are multifaceted, ranging from **financial instability** and **RELATIONSHIP CHALLENGES** to exposure to negative political or societal events.
- The dynamic and interconnected nature of these triggers makes it challenging for individuals to identify, **track** and manage them effectively.

3. Lack of Proactive Intervention:

- Existing mental health support systems often come into play after the onset of symptoms, missing the opportunity for early intervention.
- There is a need for proactive measures that can detect and address potential stressors before they escalate into more severe mental health issues.

4. Technology as a Catalyst:

- Despite the ubiquitous use of technology, there is a gap in leveraging it effectively for mental health support and early intervention.
- There is a lack of comprehensive solutions that currently harness the power of **DATA ANALYTICS**, **machine learning**, and **user-friendly interfaces** to understand and mitigate the impact of daily stressors.

Proposed **TECH** Solution:

I am proposing the development of an integrated technological application that combines AI, **machine learning algorithms**, data analysis, and user interface design to offer **proactive** support to individuals dealing with chronic stress and depression. This **MVP** solution will aim to:

- **Capture Triggers:** Utilize technology to comprehensively capture and analyse individual stress triggers from various sources, including financial transactions, social interactions, news consumption, and more.
- **Predictive Analytics:** Employ machine learning algorithms to predict potential stressors based on historical data, enabling early identification of patterns indicative of chronic stress and depression.

- **Personalized Interventions:** Design a user-friendly interface that provides personalized recommendations and interventions, empowering individuals to take proactive steps to manage stress and enhance their mental well-being.
- **Real-time Monitoring:** Implement a real-time monitoring system that continuously analyses user data, offering timely alerts and insights to users and, if permitted, their designated support network.

POST MVP features after 3 years

- Real time chat agent
- Loneliness feature
- Token Incentive model/gamification
- Integrated networking model /Events

Feature DESIGN OVERVIEW mvp:

User Self-Rating Interface: CREATE a user-friendly rating model within the mobile app, allowing individuals to self-assess their well-being across key life areas such as work, relationships, health, and finances. Users will rate themselves on a scale, providing a real-time snapshot of their overall mental health.

Summarise your entire experience today: In 3 sentences , how would you summarise your day in simple words?

Monitoring + Alert: Implement an alert feature that triggered a message if a user self-ratings fall below a predefined threshold (e.g., say below 4/10). In such cases, the app will automatically **notify** the designated medical professional, prompting immediate outreach. The agent will then connect with the user for a personalized check-up, ensuring timely intervention and support.

Benefits of the Enhanced Solution:

- **Proactive Monitoring:** Enables continuous monitoring of user well-being based on self-assessments.
- **Timely Intervention:** Facilitates rapid response and intervention when users indicate a decline in mental health.
- **Human Connection:** Introduces a human touch through agent-initiated check-ups, fostering a supportive environment.
- **User Empowerment:** Encourages users to actively engage in their mental health and seek assistance when needed.

Perceived Benefits:

- **Early Intervention + prevention:** Enable users to **IDENTIFY** stressors before they escalate into chronic stress or depression.
- **User Empowerment:** Empower individuals with actionable insights and personalized strategies to manage daily stressors.
- **Holistic Approach:** Take a comprehensive approach by considering various aspects of users' lives, including financial, social, and political influences.
- **Reduced Stigma:** Foster an environment that encourages open conversations about mental health, reducing the stigma associated with seeking help.

MVP NEXT STEPS:

- Conduct thorough user research (**Qual and Quant**) to understand the specific stressors and challenges faced by the target demographic in the UK.
- Develop machine learning models that can accurately predict and identify stress triggers.
- Design an intuitive and user-friendly interface that encourages regular engagement.
- Establish **strategic partnerships** with mental health professionals to ensure the effectiveness and ethical considerations of the intervention strategies.
- Conduct extensive testing (**closed group**) and validation to refine the system based on user feedback.

Business Plan: **Leveraging** Technology to Address + Prevent Chronic Stress and Depression:

Project Name: MindGuardian

Mission: Empowering individuals to proactively manage chronic stress and depression through innovative technology solutions.

Monetization Strategies:

1. Subscription Models:

- **Basic Plan (£5/month):** Access to the core features, including stress trigger identification, personalized interventions, and real-time monitoring.
- **Premium Plan (£10/month):** Enhanced analytics, extended historical data access, and priority customer support.
- **Family Plan (£15/month):** Inclusive features for multiple users, fostering a supportive environment within families.

2. Sponsorship from Health Organizations:

- Partner with health organizations/leads to sponsor premium subscriptions for individuals with limited financial means.
- Collaborate with mental health foundations for joint initiatives and awareness campaigns.

Financial Forecast:

Year 1:

- **Subscribers:** 5,000
- **£5 x 500 = £25,000 per month x 12 =**
- **Revenue:** £300,000
- **Operational Costs:** £150,000
- **Net Profit:** £150,000

Year 2:

- **Subscribers:** 20,000
- **Revenue:** £1,200,000
- **Operational Costs:** £500,000
- **Net Profit:** £700,000

Year 3:

- **Subscribers:** 50,000
- **Revenue:** £3,000,000
- **Operational Costs:** £1,000,000
- **Net Profit:** £2,000,000

Year 5:

- **Subscribers:** 100,000
- **Revenue:** £6,000,000
- **Operational Costs:** £2,500,000
- **Net Profit:** £3,500,000

Operations Areas: **Cost to be determined.**

1. **Technology Infrastructure:**
 - Cloud services, maintenance, Security, and updates:
2. **Development and IT Team:**
 - Salaries, benefits, and training:
3. **Marketing and User Acquisition:**
 - Digital marketing, partnerships, and promotions:
4. **Customer Support:**
 - Salaries, tools, and training:
5. **Research and Validation:**
 - User research, testing, and system validation:
6. **Administrative and Overheads:**
 - Office space, utilities, and miscellaneous expenses:

DETAILED Financial Forecast:

Year 1:

- **Target** Subscribers: 5,000
- **Predicted** Monthly Revenue: £25,000
- **Forecast** Annual Revenue: £300,000
- Monthly Operational Costs: £12,500 (50% of revenue)
- Annual Operational Costs: £150,000
- Net Monthly Profit: £12,500
- Net Annual Profit: £150,000

Monthly Subscription Targets:

- £5 Basic Plan: 2,500 subscribers
- £10 Premium Plan: 1,250 subscribers
- £15 Family Plan: 1,250 subscribers

Daily Subscription Targets:

- Total Daily Subscriptions Required: 5,000 subscribers / 30 days = **167 subscriptions per day** **AGGRESSIVE**

Year 2:

- Subscribers: 20,000
- Monthly Revenue: £100,000
- Annual Revenue: £1,200,000
- Monthly Operational Costs: £41,667 (50% of revenue)
- Annual Operational Costs: £500,000
- Net Monthly Profit: £58,333
- Net Annual Profit: £700,000

Monthly Subscription Targets:

- £5 Basic Plan: 10,000 subscribers
- £10 Premium Plan: 5,000 subscribers
- £15 Family Plan: 5,000 subscribers

Year 3:

- Subscribers: 50,000
- Monthly Revenue: £250,000
- Annual Revenue: £3,000,000
- Monthly Operational Costs: £83,333 (50% of revenue)
- Annual Operational Costs: £1,000,000
- Net Monthly Profit: £166,667
- Net Annual Profit: £2,000,000

Monthly Subscription Targets:

- £5 Basic Plan: 25,000 subscribers
- £10 Premium Plan: 12,500 subscribers
- £15 Family Plan: 12,500 subscribers

Year 5:

- Subscribers: 100,000
- Monthly Revenue: £500,000
- Annual Revenue: £6,000,000
- Monthly Operational Costs: £208,333 (50% of revenue)
- Annual Operational Costs: £2,500,000
- Net Monthly Profit: £291,667
- Net Annual Profit: £3,500,000

Monthly Subscription Targets:

- £5 Basic Plan: 50,000 subscribers
- £10 Premium Plan: 25,000 subscribers
- £15 Family Plan: 25,000 subscribers

High Level Marketing and Promotion:

1. Digital Marketing:

- Social media campaigns, search engine optimization: £150,000/year

2. Partnerships:

- Collaborate with mental health influencers, organizations, and institutions.

3. Free Trials:

- Offer a 14-day free trial period to attract new users.

Risks and Mitigation Strategies:

1. Data Security and Privacy Concerns:

- Implement robust encryption, comply with data protection regulations, and undergo regular security audits.

2. User Engagement:

- Continuous updates based on user feedback, personalized notifications, and incentives for consistent engagement.

3. Competition:

- Regular market analysis, innovation, and strategic partnerships to stay ahead.

Conclusion:

MindGuardian is poised to make a significant impact on mental health support, leveraging technology for proactive interventions. With a scalable subscription model, strategic partnerships, and a commitment to user well-being, the business is positioned for sustainable growth while making a positive contribution to society's mental health.

SUMMARY Business Case and Strategy Document: **MindGuardian** - **Pioneering Proactive Mental Health Support**

1. Executive Summary: MindGuardian is positioned to address the escalating global issue of chronic stress and depression by harnessing innovative in technology to enable early detection and proactive intervention. With a unique combination of user self-ratings, mode analytics, and an emergency alert feature, MindGuardian mobile app aims to redefine the landscape of mental health support.

2. Business Objectives:

- Propel a paradigm shift in mental health support from reactive to proactive measures.
- Mitigate the impact of chronic stress and depression through early detection.
- Establish MindGuardian as the premier platform for holistic mental well-being.

3. Market Opportunity:

- Rising global awareness of mental health issues.
- Increasing demand for accessible and personalized mental health solutions.
- Lack of comprehensive proactive tools in the current market.

4. Unique Value Proposition:

- **User Empowerment:** Intuitive self-rating interface for real-time mental health assessments.
- **Innovative Analytics:** Machine learning algorithms for early detection of stress triggers.
- **Emergency Alert System:** Timely intervention through automated alerts for high-risk situations.
- **Comprehensive Support:** Holistic approach addressing various life areas.

5. Revenue Model:

- **Freemium Model:** Basic features available for free.
- **Subscription Tiers:** Premium features and analytics for subscribed users.
- **Enterprise Solutions:** Collaboration with healthcare institutions for tailored solutions.

6. Marketing and Customer Acquisition:

- **Targeted Campaigns:** Utilize social media and influencers for targeted outreach.
- **Partnerships:** Collaborate with mental health advocacy groups and organizations.
- **Referral Programs:** Incentivize users to share MindGuardian within their networks.

7. Technology Stack:

- **Cutting-Edge Algorithms:** Machine learning for data analysis and pattern recognition.
- **Scalable Infrastructure:** Cloud-based architecture for flexibility and scalability.
- **User-Centric Design:** Mobile and web interfaces prioritizing user experience.
- **Security Measures:** Robust data encryption and anonymization protocols.

8. Team Structure:

- **CEO: Leslie Akpareva, MA, MBA:** Strategic oversight, vision, and partnerships.
- **CTO: TBC** Leadership in technology development and infrastructure.
- **Chief Psychologist, TBC: TBC** Ensuring psychological efficacy of the app.
- **Marketing and Sales Team: TBC** Driving user acquisition and engagement.

9. Financial Projections:

- **Initial Investment:** Development and marketing budget allocation.
- **Revenue Growth:** Projected based on user adoption rates.
- **Break-Even Analysis:** Anticipated within 18 months of launch.

10. Risks and Mitigation Strategies:

- **Data Security Concerns:** Regular audits and compliance measures.
- **User Adoption Challenges:** Strategic marketing campaigns and user education.
- **Legal and Regulatory Compliance:** Oversight by legal counsel.

11. Funding Requirements:

- **Seed Funding:** Initial investment for app development and marketing activities.
- **Strategic Partnerships:** Explore opportunities for collaborations with health care organizations i.e., NHS.
- **Government Grants:** Pursue grants for mental health initiatives.

12. Timeline:

- **Research and Design Phase:** 6 Months
- **Development Phase:** 12 Months.
- **Beta Testing and Iteration:** 3 Months.
- **Launch and Marketing:** Month 22.
- **Continuous Improvement:** Ongoing.

13. Key Performance Indicators (KPIs):

- **User Engagement Metrics:** DAU, Session Duration, Frequency of Self-Rating.
- **Effectiveness of Early Chronic Depression ++ Detection:** Alert Activation Rate, Medical Agent/professional Response Time.
- **User Satisfaction and Retention:** User Satisfaction Surveys, Retention Rate.
- **Impact on Mental Health:** Improvement in Self-Ratings, Reduction in Severity of Alerts.

14. Exit Strategy:

- **Acquisition:** Evaluate acquisition offers from tech or healthcare companies.
- **IPO Opportunities:** Explore opportunities for an Initial Public Offering.

Detailed Key Performance Indicators (KPIs) and Success Metrics for the Mental Health App: **MindGuardian**

1. User Engagement Metrics:

- **Daily Active Users (DAU):** Measure the number of users actively engaging with the app on a daily basis.
- **Session Duration:** Track the average time users spend within the app per session.
- **Frequency of Self-Rating:** Monitor how often users participate in self-assessments to gauge their mental well-being.

2. Effectiveness of Early Detection:

- **Alert Activation Rate:** Calculate the percentage of self-ratings triggering alerts for agent intervention.
- **Agent Response Time:** Measure the time taken by agents to respond and initiate a check-up after receiving an alert.

3. User Satisfaction and Retention:

- **User Satisfaction Surveys:** Conduct periodic surveys to gather user feedback on the app's usability, features, and overall satisfaction.
- **Retention Rate:** Track the percentage of users who continue to use the app over time.

4. Impact on Mental Health:

- **Improvement in Self-Ratings:** Evaluate the average change in self-ratings over specific periods to assess the app's impact on users' perceived well-being.
- **Reduction in Severity of Alerts:** Measure whether the severity of alerts decreases over time, indicating successful early intervention.

5. Agent Interaction Metrics:

- **Agent-User Interaction Rate:** Monitor how frequently agents engage with users for check-ups and support.
- **User Feedback on Agent Interactions:** Collect feedback on the quality of interactions between users and agents.

6. Data Security and Privacy:

- **Security Compliance:** Ensure the app adheres to data security and privacy standards, measured through regular compliance assessments.
- **User Consent Rates:** Track the percentage of users who provide consent for data sharing and intervention.

7. Community Building Metrics:

- **Community Participation:** Measure user engagement in community features, such as forums or support groups within the app.

	<ul style="list-style-type: none"> • Number of Shared Resources: Track the sharing of mental health resources among users within the app.
8.	Financial Metrics (if applicable): <ul style="list-style-type: none"> • Revenue Growth: Assess the app's financial performance, including subscription or service revenue. • Cost per User Acquired: Calculate the cost associated with acquiring each new user.
9.	Preventive Intervention Success: <ul style="list-style-type: none"> • Frequency of Preventive Interventions: Monitor how often users successfully implement preventive measures suggested by the app. • Reduction in Long-Term Mental Health Issues: Evaluate the app's impact on reducing the occurrence of long-term mental health issues.
10.	Partnership and Collaboration Metrics: <ul style="list-style-type: none"> • Healthcare Professional Engagement: Measure the level of engagement and collaboration with mental health professionals and institutions. • Partnership Growth: Assess the expansion of partnerships with organizations supporting mental health initiatives.

RESEARCH/ARTICLES

Mental health problems cost the UK economy at least £117.9 billion annually according to a [new report](#) published today by Mental Health Foundation and the London School of Economics and Political Science (LSE).

The cost of mental health problems is equivalent to around 5 per cent of the UK's GDP.

Almost three quarters of the cost (72%) is due to the lost productivity of people living with mental health conditions and costs incurred by unpaid informal carers who take on a great deal of responsibility in providing mental health support in our communities.

Costs included: health and social care costs; additional educational support costs; productivity costs; informal care costs; quality of life related costs.

- **Costs in context**

- The conservative financial cost of mental ill health in the UK is £117.9bn. This equates to 5 per cent of UK's GDP.
- NHS England's annual budget for the year 2019/20 was £150.4bn.
- The cost of the UK's furlough scheme was approximately £70bn

- **Costs per nation**

- England: £100.8 billion
- Scotland: £8.8 billion
- Wales: £4.8 billion
- Northern Ireland: £3.4 billion

- **Percentage of cost per age group**

- Age 0-14: 6%
- Age 15-49: 56%
- Age 50-69: 27%
- Age 70 and over: 10%