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HEALTHARK

Digital Innovation in Mental Health

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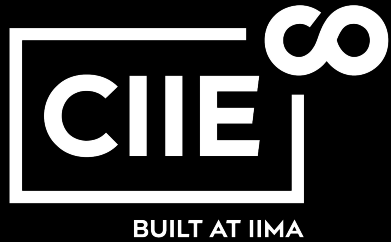BUILT AT IIMA

HEALTHARK

CIIE.CO is The Innovation Continuum. This continuum spreads across incubation, acceleration, seed and growth funding, and research. Founded at IIM Ahmedabad in 2002, as an academic centre, CIIE.CO has grown and pivoted to include acceleration, incubation, investment, research and publication. CIIE.CO has aimed at filling the multiple, ever-evolving gaps in the Indian innovation-driven entrepreneurship space in many ways. Among various initiatives, it has conceptualised and hosted India's first accelerator, created India's first and so far the only cleantech-focused fund, accelerated over 1000 entrepreneurs, invested in over 200 startups, inspired over a million with their publications, including Stay Hungry Stay Foolish.

Healthark insights is a boutique strategy consulting firm developed by a team of experts from diverse fields such as consulting, pharma, medicine, medical devices and digital health as well as public health and management with a common vision to cater to the healthcare and life sciences industry, along with a relentless focus on delivering executable solutions. The firm solves complex strategic problems through deep domain knowledge and technology expertise spanning through strategy, analytics and digital transformation. It has served multiple healthcare clients globally including Johnson & Johnson, Roche, Abbott, Pfizer, Gilead Sciences, Novartis, Boehringer Ingelheim and Eli Lilly.

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Preface

Mental health in India remains an area seeking significant attention with limited access to mental health services, shortage of mental health specialists, and lack of awareness and literacy leading to stigmas. In the last few years, India has witnessed technological innovations addressing the mental health service delivery gaps, policy interventions like The Mental Healthcare Act, 2017, and emerging business models. On the supply-side, startups are building self-help digital tools, peer-led support groups and listening circles, while on the demand-side, entrepreneurs are creating and driving awareness, affordability and providing a digitally safe environment for the users.

CIIE.CO, one of the leading technology business incubators in India, and Healthark Insights, one of the fastest emerging life science and health consulting firm, have come together for this critical landscape study of the digital mental health sector in India. With a focus on analysing the gaps and opportunities in the ecosystem, the research combines insights from secondary data as well as in-depth interviews with multiple industry stakeholders such as mental health professionals, startups and investors. The report presents startup opportunities through a 'care continuum model' which closely aligns with the typical journey of a mental health patient. Case studies of mental health startups showcase innovation in products, services or business models.

We believe this report succeeds in creating an active discourse around the digital mental health sector in India, paving the way for more technological solutions and startup innovation.

Vipul Patel
Partner - Seed Investing
CIIE.CO
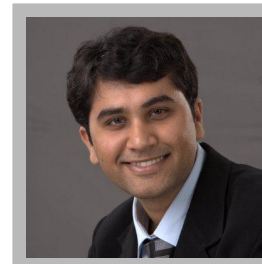
Dr. Purav Gandhi
Founder and CEO
Healthark Insights

Foreword

The Covid-19 pandemic and its aftermath have led to an increase in recognition, awareness and active discourse around mental health issues around the world. Conversations about more common health symptoms like depression, anxiety, attention-deficit / hyperactivity and learning disabilities have finally been stirred. As the burden of mental illnesses rises in India, there is a strong need to augment awareness about mental health, reduce the stigma associated with mental illnesses, and build innovative mental health interventions. The future of healthcare is digital, and the future of mental health is convenience and safety. The ultimate vision would be to democratize mental health in India in a way that the previously existing solutions have failed to achieve, by driving research-led solutions and creating sustainable business models. This timely report, by CIIE.CO and Healthark Insights, makes a strong argument towards the significance and urgent need for injecting tech and data driven solutions into the mental health ecosystem. I hope that it succeeds in providing necessary insights and motivation to entrepreneurs and innovators seeking to solve the most pressing mental health issues in India.

Mrs. Neerja Birla
Founder and Chairperson
Mpower

Disease Burden of Mental Health Disorders

Mental Health Disorders represent a significant Disease Burden globally and in India

1 Billion

People suffer from a mental health disorder, globally[1]

20%

Of the world's children and adolescents have a mental health condition[2]

< 2%

Global median of government health expenditure towards mental health[3]

$6 Trillion

Projected cost to the world economy by 2030[4]

5%

Of global adult population suffer from depression and it is one of the leading cause of disability worldwide[5]

11 years

Average delay between onset of symptoms & treatment (in the US)[6]

7.5%

Indians suffer from some mental health disorder[7]

56 Million

Indians suffer from depression[8]

38 Million

Indians suffer from anxiety[9]

36.6%

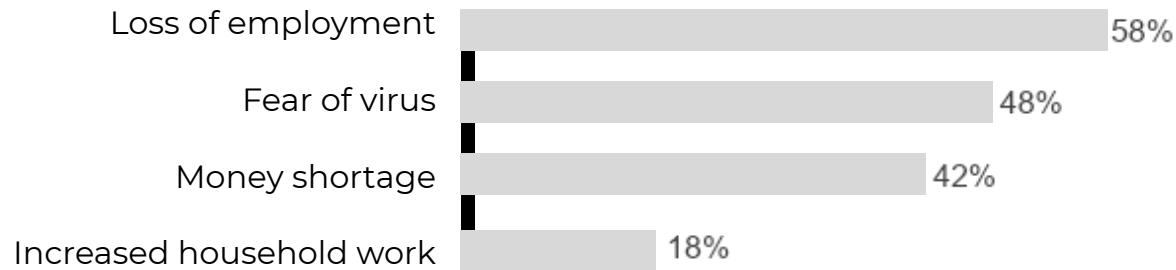*India's share of suicides, globally[10]*

$ 1.03 Trillion

India's economic loss due to mental health conditions, between 2012-2030[11]

1,4 The Lancet Global Health (Nov 2020), **2,3** Health Topics-Mental Health, WHO, **5** Fact Sheets-Depression, WHO, **6** National Alliance on Mental Illness (NAMI)
7,8,9,10 Swachh India NDTV, **11** Health Topics-Mental Health-India, WHO

Mental Health as a subject has started becoming a larger challenge and is getting its due recognition in the recent Covid-19 crisis

The COVID-19 pandemic and the resulting economic recession have negatively affected many people's mental health and created new barriers for people already suffering from mental illnesses and substance use disorders

Major contributors to stress during lockdown
(Response analysis of IMPRI Study, 2020)[12]

- Loss of employment — 58%
- Fear of virus — 48%
- Money shortage — 42%
- Increased household work — 18%

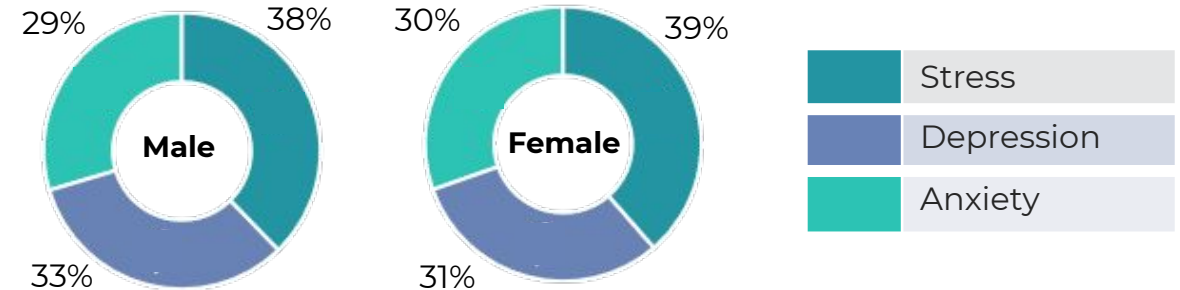|	
20%[13]	increase in mental illness cases in India, within a week of lockdown
>60%[14]	of respondents (of IMPRI survey) reported being anxious or worried during lockdown
300[15]	non-coronavirus deaths were due to suicides (leading cause) between March 19 and May 2, 2020

Mental Health through a gender lens[16]

Male: 29%, 38%, 33%
Female: 30%, 39%, 31%

- Stress
- Depression
- Anxiety

Indian Psychiatrists have confirmed a surge in cases of [17]

- Generalized Anxiety Disorders
- Obsessive Compulsive Disorders
- Phobia
- Fear of Contracting Illness

13% increase in rise of CNS drug sales in the June 2021 quarter[18]

Drug Class	Y-O-Y Growth	Sales(Cr)
Antidepressants	15%	632
Antipsychotics	13%	270

12,13,14,16 Outline India (2020), **15** Economic Times (May 2020), , **17,18** Economic Times (July 2021)

Four major Mental Health Disorders in India and their Disease Burden

Mental health disorders involve disturbances in thinking, emotion and/or behavior. The effects of mental illnesses may be long-lasting or temporary

Mental health disorders are one of the top mortality drivers - ranked 10th in India and 7th globally (2019)

Top 4 mental health disorders in India (Mortality and DALYs)

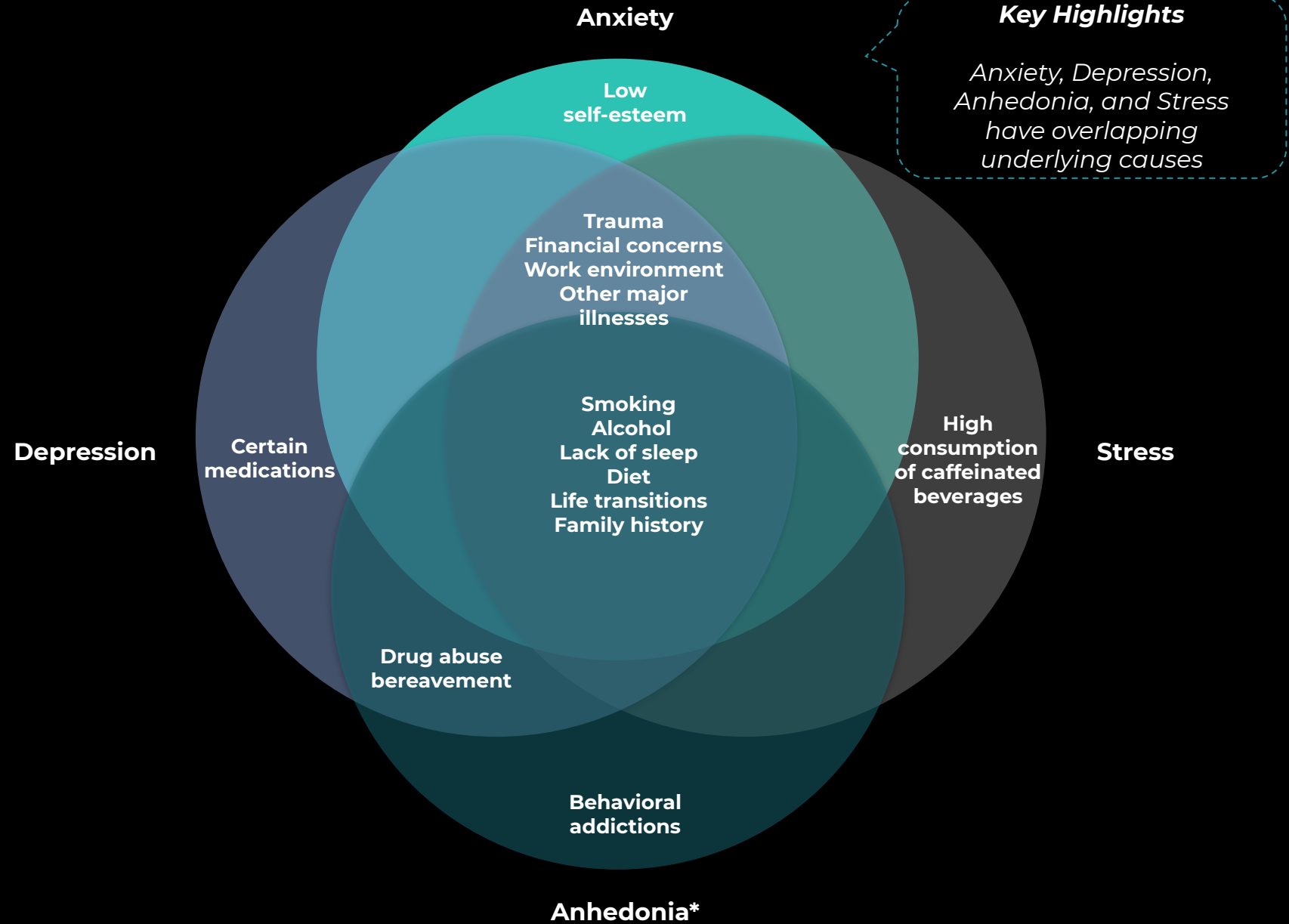| Anxiety	Depression	Schizophrenia	Idiopathic ID
▪ Feelings of worry, anxiety or fear that interfere one's daily activities	▪ Feeling of severe despondency and dejection	▪ People interpret reality abnormally	▪ Difficulty in thinking and understanding
▪ Cause of death accounts for **0.84%** of total DALYs (as of 2019), changed annually by **0.47%**	▪ Cause of death accounts **1.8%** of total DALYs (as of 2019), changed annually by **0.29%**	▪ Cause of death accounts for **0.55%** of total DALYs (as of 2019), changed annually by **0.73%**	▪ Cause of death accounts for **0.5%** of total DALYs (as of 2019), changed annually by **0.64%**
▪ Female population (**1.02%** of total DALYs) were highly affected than male (**0.68%** of total DALYs)	▪ Female population (**2.12%** of total DALYs) where highly affected than male (**1.51%** of total DALYs)	▪ Male population (**0.62%** of total DALYs) where highly affected than female (**0.48%** of total DALYs)	▪ Both female population (**0.51%** of total DALYs) and male (**0.49%** of total DALYs) are affected equally

Note: ID-Intellectual disability, DALYs-Disability Adjusted Life Years

Source: GBD vizhub

06

Risk factors associated with Mental Health Disorders are increasing as lifestyle and societal patterns evolve

Anxiety

Low self-esteem

Trauma
Financial concerns
Work environment
Other major illnesses

Smoking
Alcohol
Lack of sleep
Diet
Life transitions
Family history

Depression

Certain medications

Stress

High consumption of caffeinated beverages

Drug abuse bereavement

Behavioral addictions

Anhedonia*

***Anhedonia -** An inability to experience pleasure from activities usually found enjoyable

Sources: Web MD, Health line, Mental health

Growing prevalence of Sleep Disorders also act as one of the largest contributing Risk Factors for mental health issues

Sleep and mental health are closely connected

- Chronic sleep problems affect **50% to 80%** of patients in a typical psychiatric practice, compared with **10% to 18%** of general US adult population
- Sleep problems are particularly common in patients with **anxiety, depression, bipolar disorder, and attention deficit hyperactivity disorder**

Major Sleep Disorders – An overview

| Insomnia	Sleep Apnea	Restless Leg Syndrome	Narcolepsy
▪ Persistent problems of falling and staying asleep ▪ The rate of insomnia was **26.45%** in the **COVID**-19 recovered patients (as per a 2020 study)	▪ Potential sleep disorder in which breathing repeatedly starts and stops ▪ More than **18 million** Americans have sleep apnea	▪ Condition of uncontrollable urge to move legs, typically in night-time ▪ Only **10%** of the individuals may experience symptoms	▪ Overwhelming daytime drowsiness and sudden attacks of sleep. ▪ Around **0.1 to 0.2 million** individuals have narcolepsy in the US

Mental Health Market

Global Behavioural / Mental Health Market is expected to reach $242 billion in 2027

Global Behavioural Health Market ($ Billion)

CAGR 5.02%

171.76
2020

242
2027 F
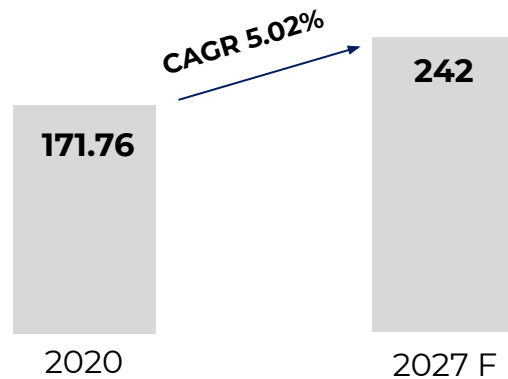
Key Market Segments

- Clinical
- Administrative
- Financial

52%
35%
13%
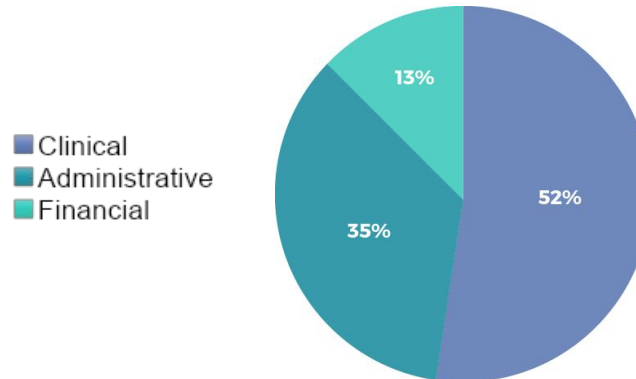
- **Clinical** - EHRs, Clinical Decision Support, Care Plans, E-prescribing, Telehealth

- **Administrative** - Patient/Client Scheduling, Document Management, Case Management, Workforce Management, Business Intelligence

- **Financial** - Revenue Cycle Management, Managed Care, General Ledger, Payroll
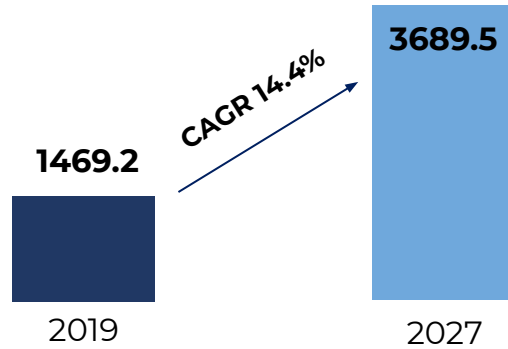
Drivers of Growth

Increasing awareness and social acceptance

Government and non-government inclination over the issues

Innovation in software & services

Lifestyle changes and unhealthy working hours
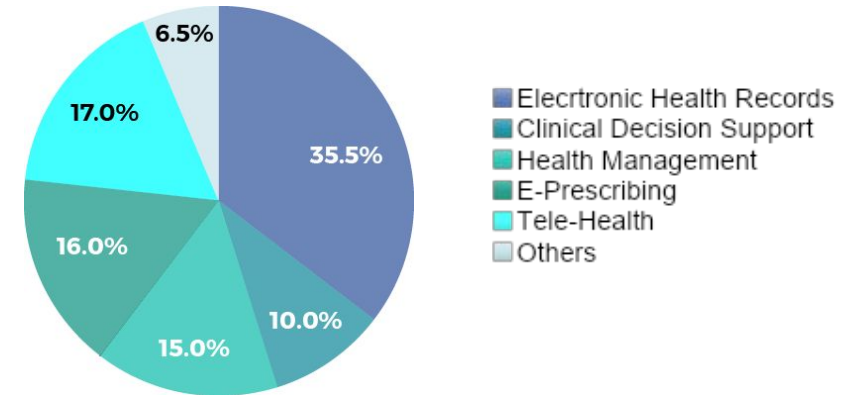
Growth Evidence

- **Growing interest of NGOs in mental health** can be seen with the development of niche community-based services including day care centers and residential facilities

- **Rise of mobile based mental health applications** including telehealth, smartphone monitoring, internet- based group/community, among others have helped this sector to bloom

- **COVID-19 pandemic has severely impacted** psychological well being of individuals, and in turn has increased the demand for mental health services

- **Increasing mental health awareness campaigns** through celebrity endorsements, government, academic & business programs, and social media have raised its significance among the population

Global Behavioural / Mental Health Software Market is expected to grow at a CAGR of 14.4% from 2020 to 2027

Global Behavioural Health Market ($ Million)

1469.2 — 2019

CAGR 14.4%

3689.5 — 2027

Key Market Segments

- Elecrtronic Health Records — 35.5%
- Clinical Decision Support — 10.0%
- Health Management — 15.0%
- E-Prescribing — 16.0%
- Tele-Health — 17.0%
- Others — 6.5%

Drivers of Growth

Adoption of management software by healthcare providers

Rising demand for mental health services amidst the Covid-19 pandemic

Innovation in software & services
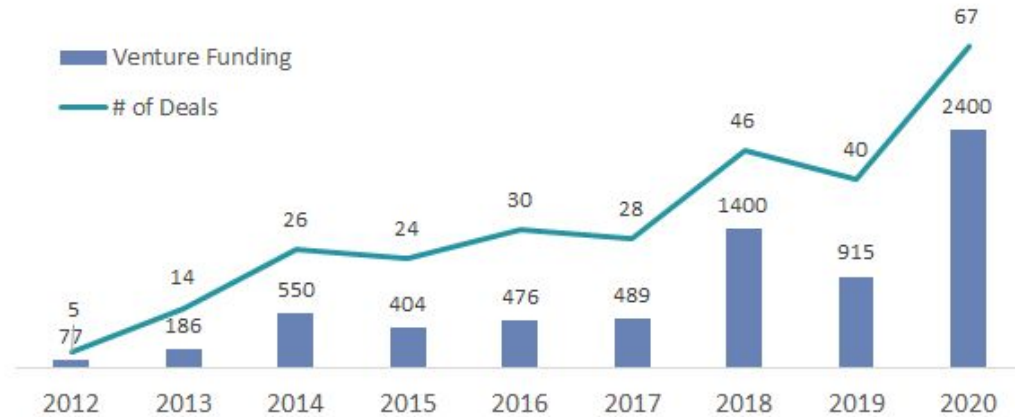
Increased funding and investment

Growth Evidence

- **Rise of healthcare software applications** with enhanced quality, user-interface & security have helped the software sector to bloom

- **Growing investments** have paved the way for its market growth. For instance, 900+ (predominantly digital) mental health startups have collectively raised approx. **$1.5 billion in investments in 2020**

- **COVID-19 pandemic has severely impacted** the mental state of individuals, and in turn has increased the demand for mental health software-based applications (telehealth / telepsychiatry platforms, meditation & daily fitness apps, activity tracking devices etc.)
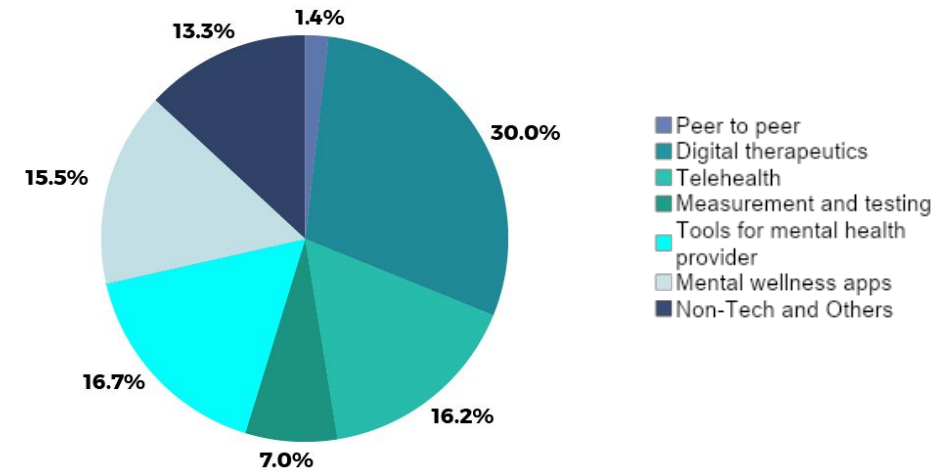
Mental health startup funding has seen an uptick since 2018 globally and will continue to grow during and after the Covid-19 pandemic

Digital behavioral health startups secured a record $2.4 billion in venture funding in 2020

Funding and number of deals 2012 – 2020 ($ Million)

Start-up Funding, by Category

Pie chart categories:
- Peer to peer — 1.4%
- Digital therapeutics — 30.0%
- Telehealth — 16.2%
- Measurement and testing — 7.0%
- Tools for mental health provider — 16.7%
- Mental wellness apps — 15.5%
- Non-Tech and Others — 13.3%

Key Highlights

- Increasing amount of capital into later-stage deals, as opposed to early-stage funding rounds, help mature companies to scale to meet urgent demands. The average later-stage deal has increased from **$23.7 million in 2016 to $64.2 million in 2020**

- Generalist startups, companies that offer behavioral health and non-behavioral health services, accounted for **$1.6 billion in funding in 2020**, and specialist startups, those that only treat behavioral health conditions, **raised $804.3 million**

- **Relatively low amount** of capital is going startups in **substance use disorder and developmental disorders** in comparison to those in mental health

- Behavioral / Mental health startups are more likely to **exit via acquisition rather than an initial public offering**

Recent funding in the Indian mental health space has been encouraging

Indian Mental Health Startup Funding

$20 M
2016-2020

$10.74 M
2021 (till August)
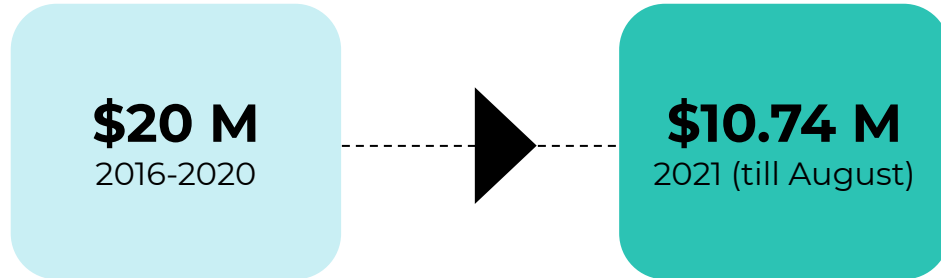
Mental health startup funding in India has grown 5x as of August 2021 when compared to 2020

Indian Funding Scenario

wysa

innerhour

MINDFIT

Wysa, an AI-enabled mental health app, has secured an undisclosed amount of investment from the **Google Assistant Fund**

Mumbai-based mental health startup InnerHour has raised **$5.2 Million in its Series A** round from venture capital firm Lightbox

Health and fitness startup CureFit has **raised $75 Million in a funding** round led by existing investor Accel Growth

Deal sizes in India are still very low compared to global Mental Health Startups

Modern Health

Modern Health, a mental health platform has raised a total of **$164.4 Million** funding in total 6 rounds

ginger

Ginger, on demand mental health company received **$100 Million Series E funding** from Blackstone

vida

Vida Health, a virtual care platform has raised **$110 Million** Series D from Ally Bridge Group and 10 other investors

lyra

Lyra Health, mental healthcare benefit company, raised **$187 M Series E** from Addition and 3 other investors

Digital Mental Health Care Continuum

Typical journey of a mental health patient

Risk Assessment

- **Symptoms** (depressed mood, loss of appetite, loss of motivation etc.)
- **Clinical risk factors** (family history, serious/chronic illness etc.)
- **Behavioral changes** (shopping spree, high caffeine intake, high screen time etc.)
- **Lifestyle** (drinking, smoking, diet & sleep)
- **Socioeconomic factors** (financial concerns, personal matters, work environment etc.)
- **Self-monitoring** (mobile applications, books, gadgets etc.)

Diagnosis

- Examination of medical history
- **Blood Tests** (to rule out other physical disorders like thyroid)
- Questionnaire and Counselling

Referral to psychiatrist or psychologist

- Diagnosing symptoms
- Behavioral & lifestyle questions
- **Physical examination** (Vitamins and Hormone test)
- **Standard screening questions** (PHQ-9, GAD-7, SHAPS, HAM-D, etc.)

Treatment & Disease Management

Treatment & Therapy

- **One-on-one Counselling**
- **Disorder management therapies** (CBT, ECT, Talk therapy, Light therapy etc.,)
- **Brain stimulation treatments** (TMS, VNS etc.) **as the last resort**

Life Style

- **Diet** (cutting down caffeine etc.)
- Exercise/Yoga/Meditation
- Sleep
- Monitoring change using gadgets and apps
- Self-help books and apps

Medication

- Antidepressants
- Antihistamines
- Benzodiazepines
- Beta-blockers
- Antipsychotic medication
- Use of Supplements, Vitamins and Essential Oils

Note : Patient Health Questionnaire-9 (PHQ-9), Generalized Anxiety Disorder-7(GAD-7), Snaith-Hamilton Pleasure Scale(SHAPS), Hamilton Depression(HAM-D) Electroconvulsive therapy (ECT), Transcranial magnetic stimulation (TMS), Vagus nerve stimulation (VNS), Cognitive behavioral therapy (CBT)

The Digital Mental Health Care Continuum

Care Continuum / Landscape	Prevention	Identification / Risk Assessment	Diagnosis	Treatment	Recovery / Support
Patient Awareness	Address social stigma, motivate people to understand importance of mental health	Educate people on tracking mental wellbeing, identifying symptoms	Creating awareness for screening and diagnosing tools and techniques	Educating or creating awareness around various treatment avenues to masses	Educating mental health patients on various recovery / support solutions
Physician Awareness / Support	NA	New data-based tools and techniques for risk measurement	Training / education platforms for physicians; digital diagnosis tools	Decision support systems to aid in patient treatment	Information systems for new drug, treatment modalities
Physician Access (Psychologist, Psychiatrist)	NA	Preliminary telepsychiatry session to assess risk based on personalized data / situation	Detailed telepsychiatry sessions to diagnose the underlying cause	Continuous telepsychiatry based therapy sessions and prescription of medicines	Remote recovery / support interventions, e-prescriptions
Lifestyle Management & Support	Productivity improvement tools, mental workout, diet, fitness plan	Tracking and monitoring mental wellness parameters (HR, BP, Sleep, RR etc.)	Evaluate mood, stress anxiety based on data, images etc.	Self improvement programs, tools / plans to fight stress, anxiety	Digital wellness assistant, productivity improvement
Counseling / CBT (Therapist)	Mental wellness platforms, Mindfulness platforms	Preliminary telepsychiatry session, digital app-based questionnaires to assess risk based on personalized data / situation	Detailed telepsychiatry sessions or digital app-based solutions to diagnose the underlying cause	Continuous telepsychiatry based therapy sessions	Behavioural change platforms with access to therapists

Digital Solutions

Mental health startups operate in several places in the Care Continuum

Care Continuum / Landscape	Prevention	Identification / Risk Assessment	Diagnosis	Treatment	Recovery / Support
Patient Awareness	5	10	0	11	7
Physician Awareness	0	13	12	22	5
Physician Access	0	11	7	30	8
Lifestyle Management & Support	1	13	6	33	10
Counseling / CBT	4	2	2	23	6

Note: 76 mental health startups were mapped in the care continuum

Increment count in matrix if startup is operating in the specific space

0	1 - 6	7 - 12	13 - 18	19 - 24	25 - 30	31 - 36

Case Studies

1. Pear Therapeutics (1/2)

- Founded in 2013, Pear Therapeutics is a leader in digital therapeutics and has built a pipeline of potential new therapies across disease areas
- Pear Therapeutics develops software-based prescription digital therapeutics for the treatment of severe medical conditions and diseases, operating at the intersection of biology & software technology

Pear Therapeutics currently has 3 approved products and expects 3 additional products to be in pivotal studies by 2023

Key Stats

| Headquarters **Boston, USA** | Total capital raised **$254 Million** |
| Last funding type **Series D** | Post-money valuation **$500 M – $1 B** |

2 — Serviceable market in US with current products ($ Billion)

15 — Serviceable market potential in US with current pipeline ($ Billion)

250 — Total US addressable market opportunity ($ Billion)

Potential Drivers of Growth

Script Volume
- Inclusion of digital therapeutics solutions in clinical guidelines and integration into health infrastructure
- Increase in Telemedicine
- Ensuing prescriptions for patients who benefit
- Reimbursement for clinician dashboards and assessments

Coverage
- Additional HEOR data along with increased provider demand
- Potential value-based agreements with major commercial players
- Increasing Patient-pay options to increase access
- Federal legislation for medicare coverage of PDTs

Pipeline

Psychiatry: 9 (Commercial 3, Pivotal 2, POC 2, Discovery 2)
Neurology: 4 (POC 3, Discovery 1)
Others: 4 (POC 1, Discovery 3)

Commercial · Pivotal · POC · Discovery

Total pipeline products : 17
Launched products : 3
Products in development : 14

Others include oncology, gastroenterology etc.
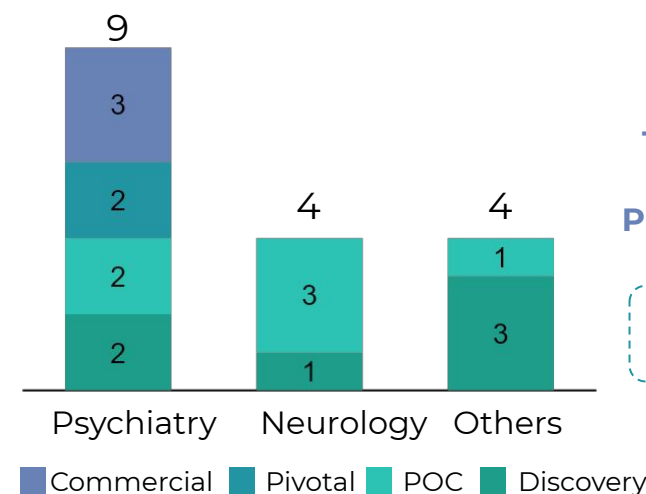
1. Pear Therapeutics (2/2)

Launched Products

Addressable Market (USD)

reSET®
First PDT to receive FDA authorization, and treats addiction to alcohol, cannabis, cocaine and stimulants
$5B+

reSET-O®
Only FDA-authorized software product to help make patients with opioid use disorder stay in outpatient treatment longer
$1B+

Somryst™
First and only FDA-authorized and guideline recommended treatment for chronic insomnia
$5B+

reSET & reSET-O have outperformed in real world setting

Clinical Trials

> 2X Improved abstinence for reSET

82% Of patients retained in therapy for reSET-O

upto 100% Substitution for clinician time

upto 12 months Of continuous use

Real World

88% Abstinent at 12 weeks

85% Patients retained in therapy at 12 weeks

62% Reduction in inpatient stays

20% Reduction in emergency visits at 6 months

- 62% Inpatient Stays

+

- 20% Emergency visits

+

- 90% Post-Observation

~$2,150 Cost savings / patient

- **Pioneers in the digital therapeutics space, Pear therapeutics has proven the utility of digital therapeutics in the treatment of severe medical conditions and diseases and, it is set to be a leader in the space powered by a rich pipeline of products.**
- **In spite of PDT's proven clinical utility and need in the Indian market, there is no company developing PDTs for mental health in India**

2. Happify Health (1/2)

Partnerships

- Founded in 2012, Happify Health is a behavioral change technology company that drives personal, business, and healthcare outcomes through improved emotional health.
- Happify Health features science-based activities and games that tackle topics such as resilience and mindfulness, as well as conditions ranging from depression and anxiety to chronic pain and insomnia

SANOFI — Multiple Sclerosis

almirall — Psoriasis

Key Stats

Headquarters **New York, USA**	Last funding type **Series D**	Total capital raised **$118.7 Million**	Post-money valuation **$100 - $500 Milion**

Products

Digital Therapeutics	Care Delivery	Activation	Wellness	Coaching
Happify offers a range of products, offering a variety of solutions from helping improve mental health to helping individuals realize their full potential	Happify currently offers 2 products; **Connect** (Aims at simplifying how individuals access an organization's health resources) and **Kopa** (A patient-centered engagement platform)	Happify's **Activate** helps deliver effective, custom campaigns that generate awareness, achieve mass adoption, and maintain engagement for an organization	Happify's **Wellness** is a B2C platform that helps individuals build skills for emotional wellbeing	Happify's **Anna** is a digital well-being coach that helps deliver mental health interventions and help solve behavioral health conditions by identifying appropriate Happify activities
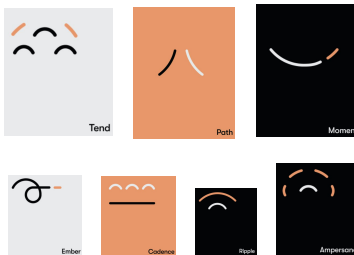
Sources: Happify Health, Happify - Crunchbase Company Profile & Funding

2. Happify Health (1/2)

Happify offers a variety of solutions across different domains

External Happify Partners

Happify

For Employers and, Payers & Providers

Activate — Tested & proven activation services

Connect — Screen & refer individuals to right level of care

DTx — Catalog of digital therapeutics covering mental & chronic illness needs

Happify Coaching — Live clinical & AI-assisted coaching support

Kopa — Personalized disease specific care delivery and community offering

3rd party Coaching — Referral to coaching solution

Therapy — Referral to in-network digital or in-person providers

Ecosystem Partners — Referral to in-network digital or in-person providers

Kopa is an offering for "Payers & Providers" and is not a part of the "Employer" ecosystem

For Pharma

Activate — Tested & proven activation services

Kopa — Screen & refer individuals to right level of care

DTx — Catalog of digital therapeutics covering mental & chronic illness needs

PDT — FDA-approved prescription digital therapeutics to treat mental & physical conditions

Clinical Trials — Access to any drug or digital therapy trial

Telemedicine — Direct access to telemedicine services

Ecosystem Partners — Referral to in-network digital or in-person providers

Rx — Drive personalized awareness to your Rx treatment options

Happify Health identified emotional health as a key pain point for personal, business & healthcare outcomes and, thus created a wholesome solution to drive improved emotional health for improved outcomes for Employers, Payers & Providers and Pharma

Source: Happify Health

3. Wysa (1/2)

- Founded in 2015, Wysa is an AI-enabled life coach for mental and emotional wellness, Wysa is developed by Touchkin e-services Pvt. Ltd

Key Stats

| Headquarters **Bengaluru, India** | Total Capital Raised **$10.4 Million** |
| Company Status **Private** | Valuation **$30.4 Million** |

Marquee Investors

Kavita Boradia, Kae Capital, Pi Ventures, Google, W Health Ventures,

10M Lives covered

3M People helped in 60+ countries

100M Conversations

+

91% Happy users

Services

AI Chatbot
AI Chatbot- includes clinically safe mental health tools along with professional chat-based therapy supports. It uses AI to 'listen' to users and understand user input

Premium Self-Care Library
Premium Self-Care Library contains over 150 tools to help the customer to deal with issues ranging from body image to breakups

Professional Therapists
Professional Therapists- Therapists are qualified and experienced global mental health professionals who supports via in app text-based chat sessions

Collaborations & Features

Collaborations & Partnerships

accenture
aetna
NHS
Cincinnati Children's
changing the outcome together
MINISTRY OF HEALTH SINGAPORE

Key Features

- ✓ Rated 93% by ORCHA
- ✓ 100% Clinical Assurance
- ✓ It has over 100 different AI models
- ✓ Recognize Over 70 Different Emotions
- ✓ Anonymous, Evidence Based

Users

- 20 India
- 50 USA, Canada & UK
- 20 Other Asia & SE Asia
- 10 Rest of the world
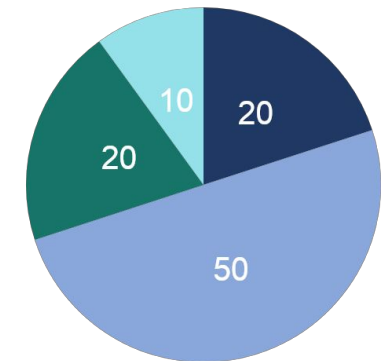
■ India
■ USA, Canada & UK
■ Other Asia & SE Asia
■ Rest of the world

3. Wysa (2/2)

Real World Impact

High users
n=108

Low/ non
users n=21

40%

Lower impact for low/non users
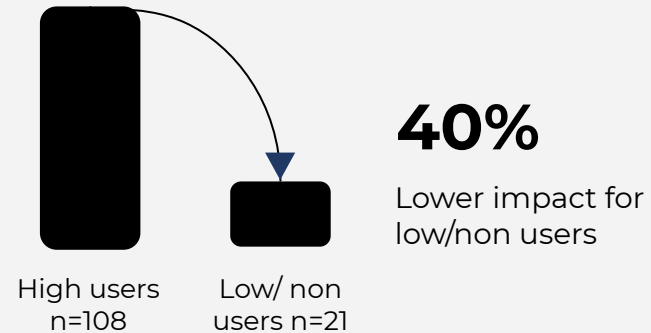
- Frequent users showed a 40% improvement in self-reported symptoms of depression
- Frequent users had a significantly higher average mood improvement
- 67.7% of user-provided feedback responses found the app experience helpful

Real World Impact

- In 2020, the government of Singapore licensed Wysa, and provided the service for free to help cope with the emotional fallout of the coronavirus pandemic

- U.K.'s National Health Service (NHS), Wysa is compliant with the NHS' **DCB0129** standard for clinical safety, the first AI-based mental health app to earn the distinction

- In the U.S., the Wysa app, fits the FDA's definition of a general wellness app or a "**low risk device**" because during the pandemic, the FDA has created a guidance to accelerate distribution of these apps

Future Plans

- Wysa aims to expand from **3 M users to 10 M users**

- Wysa plans to **expand its Indian footprint** and **offer services in various vernacular** languages to help aid in the expansion

- Wysa team is **working with Apple's SiriKit**, to "**transform" Wysa into a voice-based platform**

- Plans to launch services for healthcare & insurers to increases mental health awareness

Wysa's 3 tier assessment & care system coupled with it's easy to use interface has led to it's wide adoption that has led to Wysa being among the leaders in AI-assisted mental & emotional wellness support systems .
Even though Wysa is an Indian company, majority of its user base is in US & Europe that could be due to Wysa's focus on international markets or existing challenges in the Indian market e.g., language barrier , social stigma etc.

4. Manah Wellness (1/2)

Founded in 2020, Manah Wellness is building a comprehensive and preventive emotional well-being platform for employers that focuses on three important pillars i.e. Emotional Wellbeing, Personal Growth and Professional Effectiveness.

Key Facts

Headquarters
Pune, India

Company Status
Private

18
Languages supported by Lets Talk India

50+
Corporate clients served

Key Milestones
Aug 2020 - Launch
Sep 2020 - First paid client
Jan 2021 - First international client
Apr 2021 - Partnership with top 5 insurance brokers in India - Access to 700 clients

Manah Digital Mental Health Tools and Activities Library

Coping Techniques

Relaxation exercises	Affect Labeling	Meditation
Breathing Exercises	Mindfulness Activities	

Self care activities

Creating a worry Box	Create a journal	Stress Ball
Playing music of one's choice	A letter to self	Mental health First Aid etc

Manah USPs

- ✓ Platform designed with preventive approach
- ✓ Wellness for everyone – regular evaluation / risk mitigation
- ✓ Personalized plan – New skill building / Personal growth
- ✓ Chat with Therapist / Manah BOT
- ✓ Live Corporate dashboard

Sources: Primary Research, Manah Wellness, Outlook India

4. Manah Wellness (2/2)

Digital-first 5 Step Process

Onboarding	Assessment	Engaging	Institutionalising	Resilience Building
• Manah Wellness conducts awareness sessions/ webinar talks with the HR, Employees, CXO to get everyone on the same platform. • They also ask them to participate in the selfcare bootcamp or other Manah activities which are regularly conducted by the Manah team.	• During this phase Manah conducts proactive digital assessment for employees to identify risk, coping skills across 9 parameters through an online confidential self assessment which is powered by Manah's proprietary process. • It is followed by a comprehensive emotional check-in interview with their expert psychologist.	• Manah provides the emotional wellbeing report card to the employees which also has recommendations. • The recommendations will be in the form of self care activities / skill building which are available on the Manah platform. • Therapists may also advise counseling which can be scheduled as per employee convenience.	• During this phase, Manah provides an emotional wellbeing report to the Corporate (Corporate emotional wellness index). • It includes recommendations in terms of programs to be carried out within the company with calendar. • The programs include specialized workshops and mental wellbeing first aid training.	• By this time, Manah Wellness has a wellbeing ambassador established within the company with a full year calendar filled with events and programs.

Trusted by Progressive Organisations

HealthAssure Good Life   The Fuller Life   nova benefits   UBS   SYNERGY GROUP

Manah Wellness partners with progressive organizations to help them take care of their employees' emotional well-being by leveraging an AI driven emotional health platform complemented with a human touch

A series of Startups have emerged in the last few years across the Care Continuum

	Prevention	Identification / Risk Assessment	Diagnosis	Treatment	Recovery / Support
Global maaind	✓	✓			
Woebot	✓	✓	✓	✓	✓
BrainCheck	✓	✓	✓		✓
omada	✓			✓	✓
vida	✓	✓			✓
AKILI				✓	✓
BehaVR					
Limbix	✓			✓	✓
Triggr Health					✓
PsyCuration					✓
India Moodlytics	✓	✓			
innerhour	✓	✓	✓	✓	✓
Happi Mynd	✓				
ZEN LOUNGE	✓				
MINDFIT	✓				
GOOD APP	✓				

Challenges and Future Opportunities
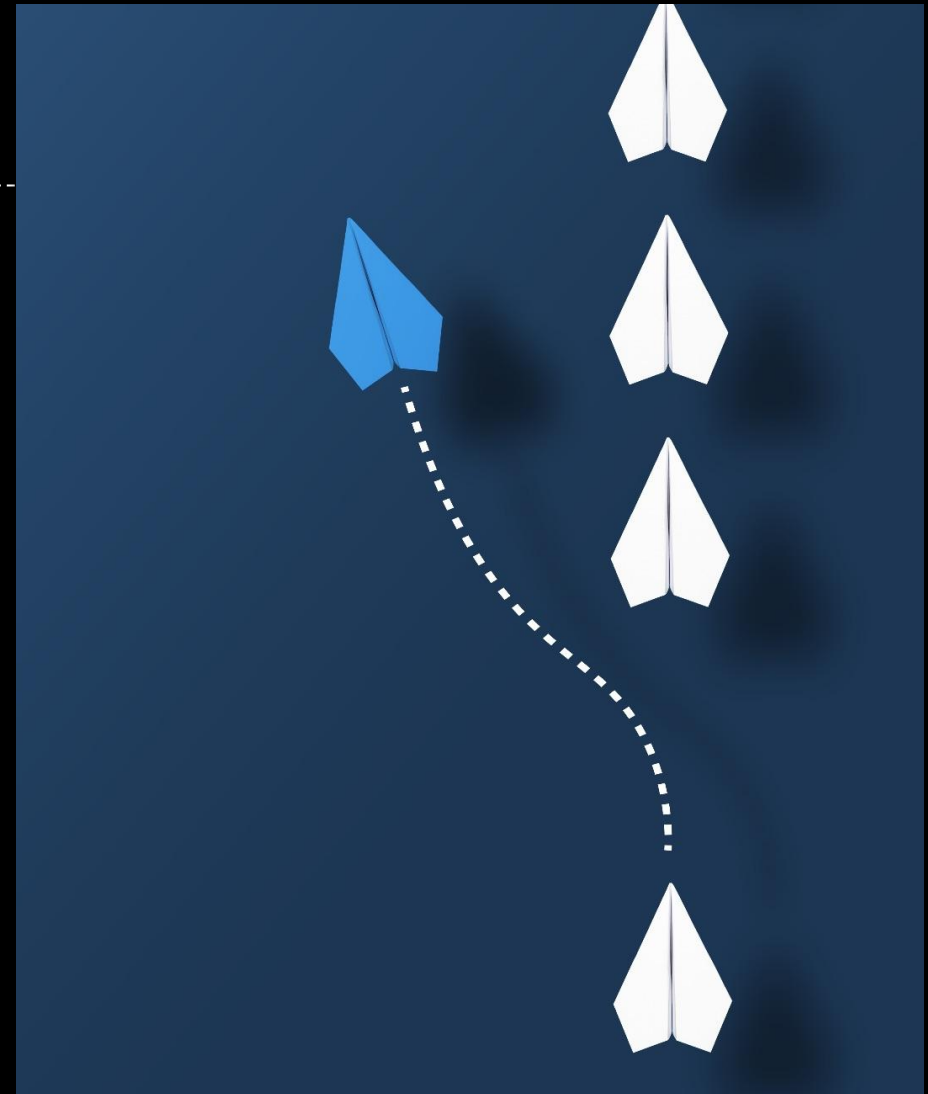
Challenges and Opportunities in the Indian Digital Mental Health Market

Challenges
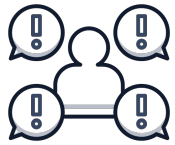
- Lack of awareness and social stigma
- Supply deficit and access challenges
- Diagnosis
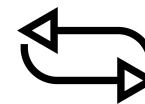- Cost, monetization and funding

Opportunities
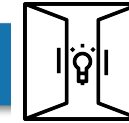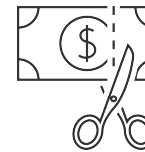
- Disruptive technology
- Low-cost solutions
- Awareness and access
- Re-positioning

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Mental health in India is plagued by Lack of Awareness and Social Stigma, which has been reinforced by Supply Deficit and Poor Access

Lack of awareness & social stigma

Limited awareness and seriousness about mental health problems in India
o Rural vs Urban - Lack of awareness in Tier II, Tier III cities and beyond
o Intergenerational gap - Awareness gap exists between younger and older population. Younger population is more prone to mental health issues

High stigma prevents people from opting for treatments / solutions
o Like awareness, stigma is more prevalent among older population and there is intergenerational gap
o Indian society is largely dominated by the "What others will think" notion, which prevents people who are suffering from mental health issues from seeking professional help

There is not only higher awareness and lower stigma but also health conscious people in Tier I cities. Also, mental health awareness got a boost from a lot of factors such as Covid-19 and endorsements by many prominent public figures

Supply deficit and less access

Limited certified colleges and high variations in educational programs
• There is a lack of quality psychologists (RCI registered) in Tier II & Tier III cities
  • Approximately 650 seats in RCI approved colleges *(Majority of RCI trained Psychologists enter into academics)*
• Various diploma courses with no clear description of coursework enable people to practice clinical psychology and this has led to a compromise in quality due to lack of standardization
• Lack of quality psychologists and lack of awareness has led to poor access for patients in Tier II & Tier III cities and the current solutions / companies rarely target population in Tier III and beyond
• Traditional solutions also have a "matching problem" i.e., inability to match the patient with the right kind of therapist which can also eat away limited supply side resources

Despite the large burden of mental illnesses, only 10% of Indians with mental health problems receive evidence-based treatments

India has **1 Psychiatrist per 300,000 people** vs the US which has 16 per 100,000 people.

1 Psychologist for every 15,000 people vs the US which has 33.6 per 100,000.

Accurate Diagnosis is difficult and majority of Indians are unable to afford the current treatment options

Diagnosis

Broad spectrum of symptoms and behaviors for the same mental health condition
- Digital-only solutions such as AI Chatbots, self-help apps aren't sufficient for diagnosing
- Inability of patients to express symptoms due to **language barrier** is a hurdle. Patients are unaware of what exactly to tell the doctor and there are no specific words in many languages for mental health conditions

Limited diagnostic options

- Most of the currently available sensor based devices and imaging techniques are indicative in nature and not diagnostic
  In order to diagnose mental health conditions, it is important to understand the functioning of the brain and its state needs to be captured continuously – FMRI, SPECT, CT, PET etc.

Cost of treatment

Out-of-pocket burden
- On an average a seasoned psychologist / psychiatrist charges 1000-1500 rupees per session. At a rate of 3 – 4 sessions / week it amounts to approximately 5000 rupees a month (~20 % of the average income of a person in India)
- Diagnostic costs is a major hurdle for patients seeking treatment - Brain Mapping tests, Neurofeedback session cost ~30K+ rupees in India
- Insurance does not cover therapy / counselling, neurofeedback sessions. It only covers in-patient services

Lack of willingness to pay - Even if people can afford, there is a lack of willingness to pay for mental health services

Monetization

Monetization for B2C mental health offerings has been proven difficult in the past
- MoodCafe shut down operations primarily because in their freemium model people were using free services and conversion rate to paid services was abysmally low to sustain the business

Funding

Funding - Even though funding has picked up, it is miniscule compared to other sectors. Moreover, securing funding for moonshot projects is difficult.

Industry Perspectives

"It is difficult to express depression in one's own native language. In fact, people don't know what the right word is"

Dr. Ambrish Dharmadhikari, Head Psychiatrist, Mpower

"While seeking Mental Health support, it is indeed true that affordability is a major issue, particularly where it is needed the most. Innovative models which help increase access, increase affordability and increase adoption are much needed"

Dr. Ashwin Naik, Founder, Manah Wellness

"In pay per session models, there is no transparency as to what a professional will charge. The pricing is all over the place and is opaque. It may range from Rs. 300 to Rs. 7000 & above per session"

Harjas S. Gulati, Founder, Untangle.Space

"Mental health startups historically have faced challenges owing to social stigma and unproven business models. However, with the current tailwinds and rising awareness, the future for mental health space in India is interesting."

Chintan Antani, AVP - Seed Investments & Portfolio, CIIE.CO

Disruptive Tech, Low-cost Models can help in tackling existing hurdles and enable startups to gain better acceptance in the Indian Market

Disruptive technology

- **Disruptive tech models using AI & Machine learning** are picking up speed in developed markets and have a huge market potential in India because they reduce chances of misdiagnosis thereby improving treatment outcomes
  - Companies like Sparcolife(prototype only), Tytocare & Neuphony have developed **device + digital** solutions to aid in improving diagnostic outcomes and partnered with healthcare institutions to deploy their product

- **Digital Therapeutics** have been picking up speed globally and is expected to show a CAGR in high twenties over the next decade
  - Post-Covid at-home solutions are picking up pace, which presents a huge opportunity for digital therapeutics

- **AR & VR**, both present a step-change in how individual can improve their mental health. Some companies are developing AR-VR (Augmented Reality – Virtual Reality) solutions to create life-like experiences to enable healthcare providers to provide life-like experiences to patients thus improving treatment outcomes (*Limbix is developing a VR system for healthcare institutions that treats fears, addiction, depression, and teaches mindfulness and meditation*)
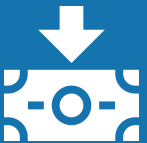
Low-cost solutions

- **Low-cost subscription models** can help decrease the cost burden on patients and could drive adoption. Such models can also help reduce the rural-urban gap because current solutions aren't affordable for the rural population

- **Peer-to-peer Support :** A general acceptance and increased uptake of peer-to-peer support solutions have been seen but majority of them are being offered free of cost. An innovative way to monetize such solutions could result in greater chances of success in the Indian market

Huge potential lies in less explored areas such as Awareness / Access and in Repositioning businesses to target high spending groups

Awareness / Access

- **Partnering with Empowered Individuals/ Organizations :** Influencer community and personalities can help raise awareness about mental health in Tier III cities and beyond
- B2B models can solve awareness and access challenges in the Indian mental health market

- Developing **solutions in vernacular language** can aid in tapping the non-english speaking Indians

- Huge opportunity lies in **training and developing seasoned psychologists** and potentially partnering with RCI can open additional avenues

- **Self-help :** Self diagnosis or risk identification presents a huge opportunity and can help tackle major challenges such as awareness, access, supply deficit, cost of treatment etc.
  - o Self-help tools can also help overcome social stigma and aid in outcomes of the patient at home in one's own comfort zone
  - o Monetizing such guidance tools which suggests best path forward could be a part of a larger solution
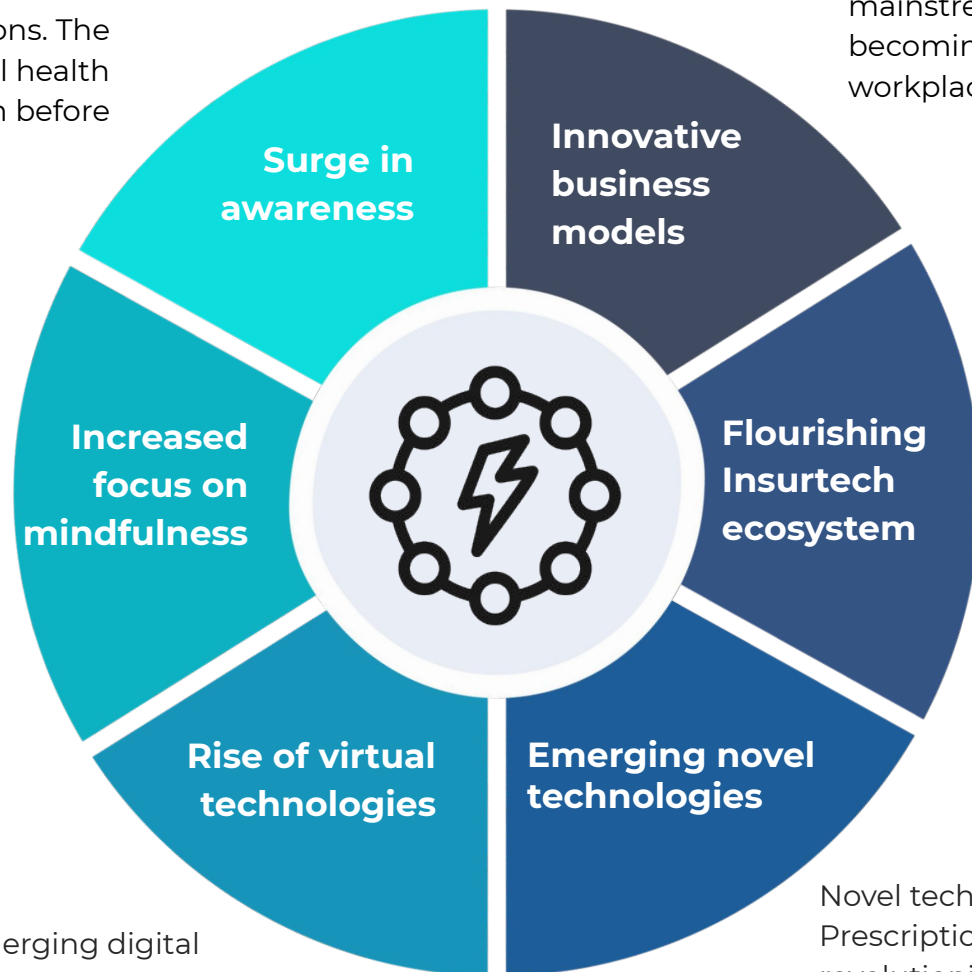
Repositioning

- Companies are positioning themselves as **B2B2C platforms** where employers pay for the mental well-being of their employees for improved productivity

- **Targeting niche markets** where willingness to pay is high can unlock great financial opportunity for mental health startups (Sparcolife has targeted the reproductive health market)

Disruptive Factors will continue to drive the Future of Mental Health

Increasing number of awareness campaigns by the Govt. as well as non-Govt. organizations will lessen the social stigma associated with the mental health conditions. The pandemic has already pushed mental health conversations forward in a way never seen before

The concept of Mindfulness has gained prominence during the pandemic. Research has shown that apart from reducing stress, scientifically designed mindfulness solutions can also improve relationships, increase working capability and also help to introspect and acknowledge one's emotions

Growing use of virtual care applications and emerging digital tools will augment the mental health care delivery. Also, self-help digital diagnostic tools are set to place the mental health analysis right at the hands of the people besides helping the providers accurately diagnose a mental health condition

- **Surge in awareness**
- **Innovative business models**
- **Increased focus on mindfulness**
- **Flourishing Insurtech ecosystem**
- **Rise of virtual technologies**
- **Emerging novel technologies**

B2B services-led business models are all set to become mainstream in the future since employee mental health is becoming a bigger part of the conversation in today's workplaces

Introducing insurance coverage for mental illnesses will make treatment more affordable and accessible for the general population. Max Bupa Health Insurance, ICICI Lombard, Aditya Birla Health Insurance Company, HDFC Ergo General Insurance and Digit General Insurance are have recently introduced products for mental illnesses

Novel technologies such as Neurofeedback and Prescription Digital Therapeutics will completely revolutionize the way complex mental health disorders like ADHD, PTSD, ASD, depression, sleep related disorders etc. are treated

This report has been co-authored by CIIE.CO and Healthark Insights
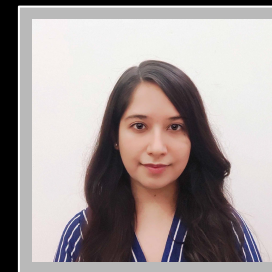
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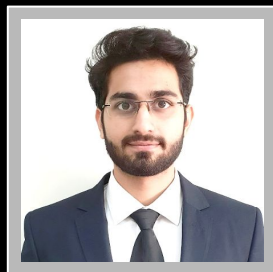
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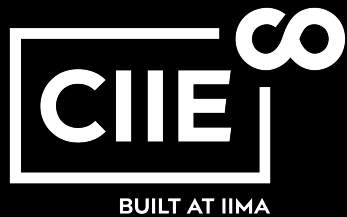
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