



Comparative Evaluation of Mental Health Disease Burden and Digital Mental Health Market In India and South Korea

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Internship Organization : Healthark Insights

Contents

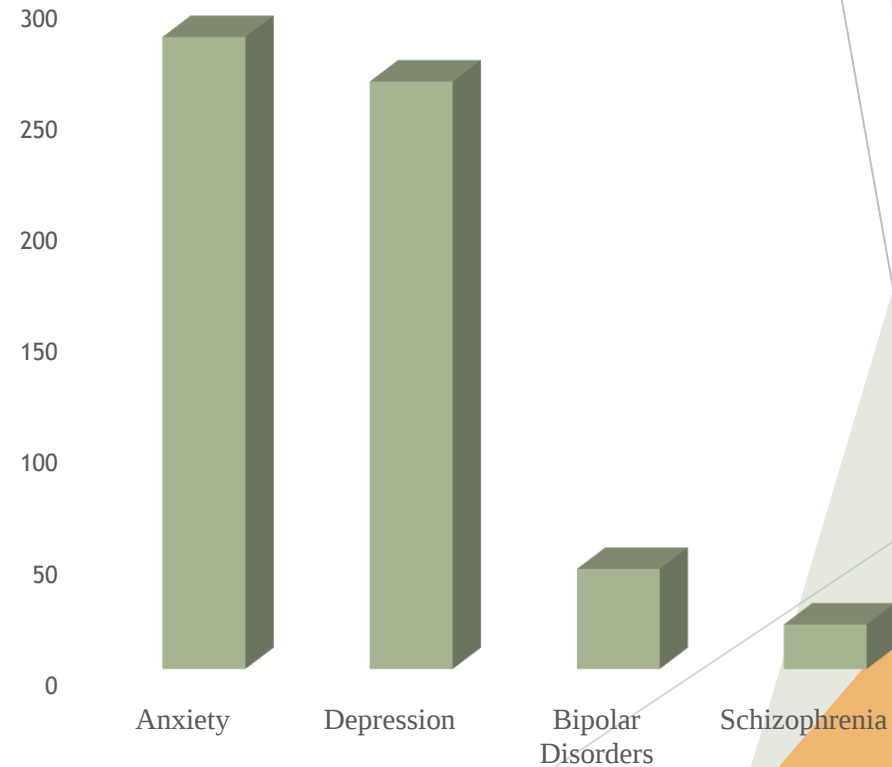
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1. **Introduction**
 - 1.1 Global Scenario
 - 1.2 Importance Of Digital Mental Health Market
 - 1.3 Rational & Research Objectives
 - 1.4 Research Question & Methodology
 - 1.5 Literature Review
 2. **Mental Health Disease Burden In India and South Korea**
 - 2.1 Overview
 - 2.2 Comparing The Disease Burden
 3. **Digital Mental Health Market In India and South Korea**
 - 3.1 Overview
 - 3.2 Market Drivers
 - 3.3 Market Restraints
 - 3.4 Competitive Landscape
 - 3.5 Conclusion & Limitations
 4. **References**
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Global Scenario

Key Points

- ▶ Mental illness has been proclaimed to have the most dominant disease burden in most advanced countries by WHO
- ▶ Nearly 970 million people across the globe suffer from mental health disorders and every year around 8 million deaths or approximately 14.3% of deaths occur due to mental health disorders
- ▶ 11.9% females and 9.3% males are affected by some kind of mental illness worldwide
- ▶ The awareness level towards mental health is rising all around the world
- ▶ WHO in 2013 set an aim to upsurge administration of the mentally ill by 20% in all the countries by 2020 with an inclusive mental health action plan

Global Disease Burden (Millions)



Importance of Digital Mental Health

Key Points

- ▶ Deficiency of resources, constrained access to healthcare facilities and associated social stigmas are the three main barriers in mental health treatment market
- ▶ Most of the mental health conditions are both treatable, and in some cases, preventable but patients fail to approach for help due to the prevailing barriers
- ▶ These barriers have turned out to be the driving factors for the emerging digital mental health market
- ▶ Need for faster healthcare is required, with the increase in number of patients suffering from mental illnesses incessantly

Key Points

- ▶ There are presently over 300,000 health applications worldwide and the mental health segment accounts for the largest growth in the market
- ▶ The benefits of this platform are that it increases access to care, at fingertips, and can hopefully personalize care to one's exact needs
- ▶ There is the potential to provide care that is more reasonable, customized, and approachable
- ▶ Mostly the digital mental health space comprises of direct-to-consumer applications
- ▶ They encourage self-monitoring by the patients and health-promotion. Biggest benefit being that they are accessible 24/7 and are versatile in nature

Rationale & Research Objectives

Rationale

- ❑ Lot of gaps in the conventional mental health delivery system
- ❑ Emerging digital mental health platform can overcome the prevailing barriers and provide solutions for the mental disorders to a larger group of people
- ❑ The rationale of this study is to compare the prevailing disease burden of common mental disorders in India and South Korea and understand their digital mental health delivery market

Research Objectives

- ❑ To compare the mental health situation and disease burden in India and South Korea
- ❑ To understand the digital mental health market and its opportunities in both the countries

Research Question & Methodology

Research Questions

- ❑ What are the differences in the burden of common mental disorders in India and South Korea?
- ❑ What is the market size and scope of the digital mental health market in both the countries?

Methodology

- ❑ **Mode Of Data Collection:** Secondary Sources
- ❑ **Data Sources:** Research Gate, Google Scholar, Articles, Market Reports, IHME
- ❑ **Study Period:** 2 Months
- ❑ **Type Of Study:** Descriptive Study

Literature Review

Author's Name	Description
Sungwon Roh et al. (2016)	This study focuses on the mental health services in South Korea and the research and development position, they examined the limitations and future opportunities
David Mohr et al. (2017)	This article focuses on three misconceptions with current digital mental health research and their possible solutions
J A Naslund et al. (2017)	They identified 49 studies of digital technology for the treatment, prevention, diagnosis, and management of mental disorders or for the provision of mental health training and education to health workers in over 20 low income and middle-income countries
Koushik Sinha et al. (2018)	They conducted a study on 176 participants. Scope, design issues and limitations of executing a mobile technology-based intervention for minimal resource settings in treating severe mental illnesses have been systematically looked upon in this study.

Literature Review

Author's Name	Description
De Leo et al. (2019)	Article describes how COVID 19 situation enhanced the digital interventions because of the challenges faced by conventional methods of mental health
Kiona Weisel at al. (2019)	A complete literature search was conducted in February 2018 on randomized controlled trials examining the effects of individual apps for mental health in adults with increased symptom seriousness, compared to a control group. Included 19 meta-analysis to study the evidence of standalone apps for treating mental health symptoms
R Sagar et al. (2019)	The study mentions the burden of mental disorders across the states of India from year 1990 to 2017. They also used the Global Burden of Disease comparative risk assessment framework to estimate coverage of risk factors related to mental disorders and their corresponding disease burden.
Ga Eun Kim et al. (2020)	In this study a large representative sample data was used to prove that the prevalence of depression contributed to the increased risk of suicide in South Korea during the past decade.
Balcombe L et al. (2021)	This article focuses on risk prediction in mental health, predictive technologies, artificial intelligence in mental health, HCI and emerging aspects of digital mental health. It also explains how digital mental health is implemented in a hybrid model of care.

▶ **Mental Health Disease Burden In India and
South Korea**

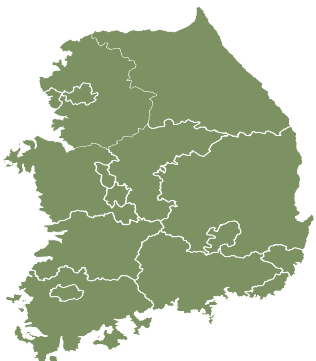
Overview

- One in seven Indians are affected by mental disorders of variable seriousness
- There were around 197.3 million people with mental disorders in India, in 2019, which contained 14.3% of the total population of the country
- Mental disorders contributed 4.67% of the total DALYs in India in 2019, compared to 2.31% in 1990
- India contributes excessively to the global burden of disease including mental health in spite of improvements in various health indicators
- The first National Mental Health Policy for India was launched in 2014 and a revised Mental Healthcare Act in 2017

INDIA



SOUTH KOREA



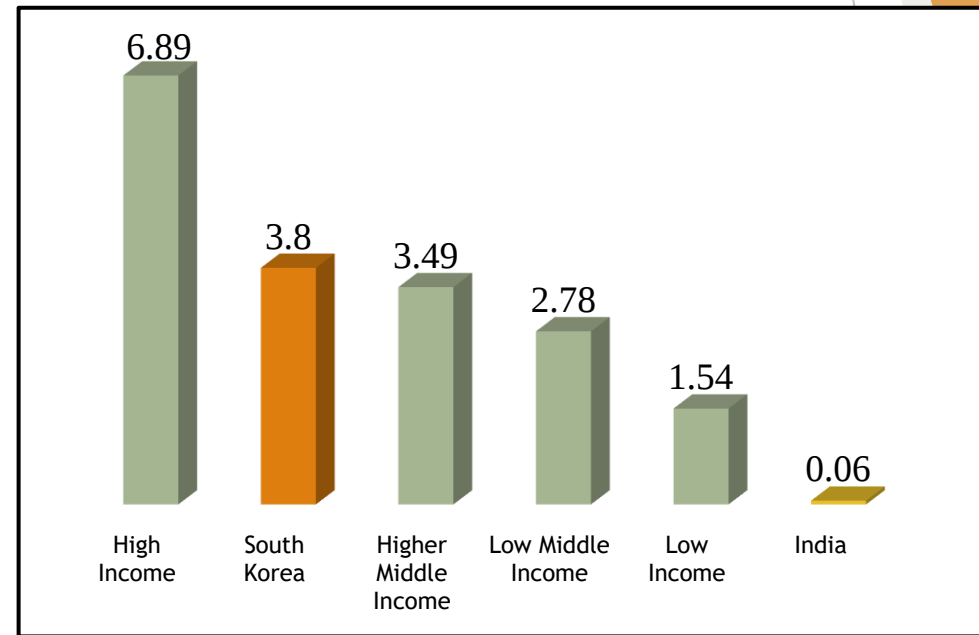
- In South Korea 3 out of 10 adults experience mental illness
- The life-time prevalence rate for mental diseases is reported at around 27.6 %
- Mental disorders contributed 6.39% of the total DALYs in South Korea in 2019, compared to 5.13% in 1990
- Only 14% of the people used the mental health hospitals and only 0.68 % of people used the community residential facilities
- Suicide rate 26.3 per 100,000
- The government introduced the 'First Five- Year Plan for National Mental Health Promotion' in 1998

Overview

Mental care medical professional count per 100,000 population in both the countries

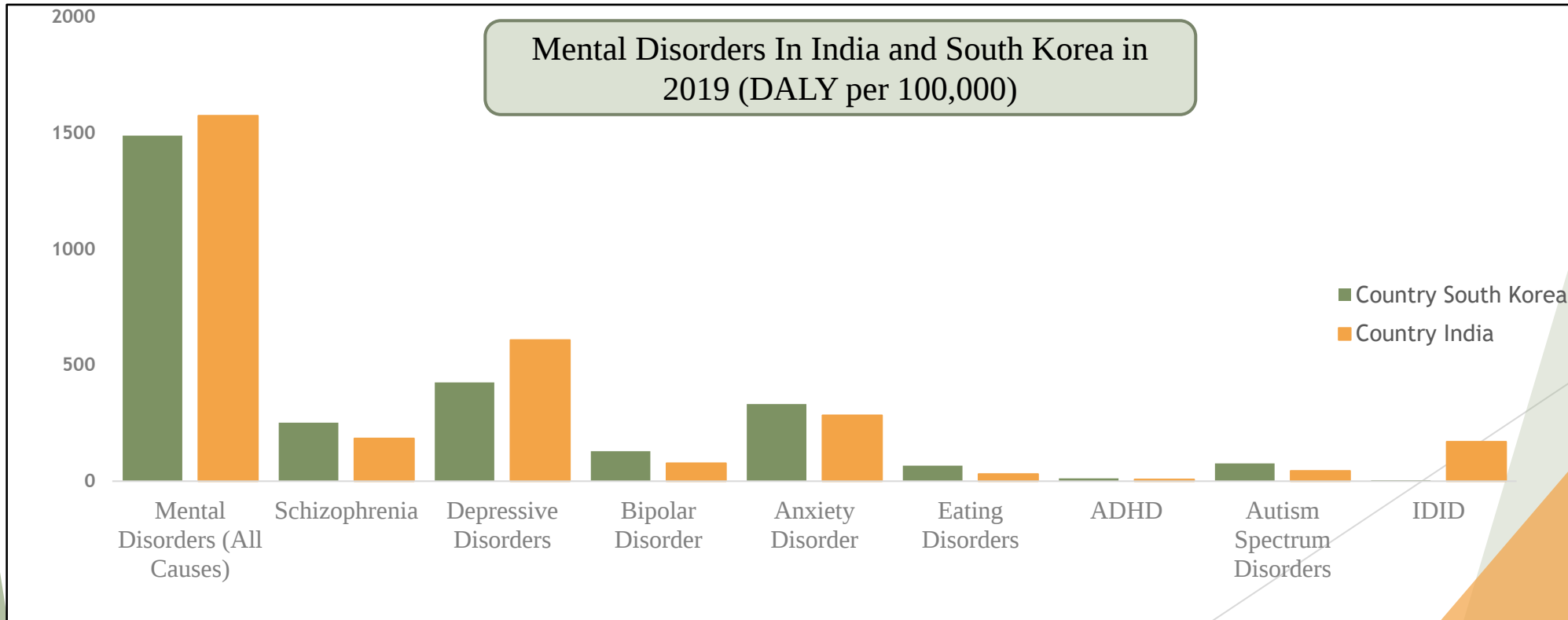
Medical Professionals	India	South Korea
Psychiatrists	0.3	5.79
Psychologists	0.07	1.59
Mental Health Social Workers	0.07	8.40
Mental Health Nurses	0.12	1.59

Percentage of mental health budget of the total health budget in different countries



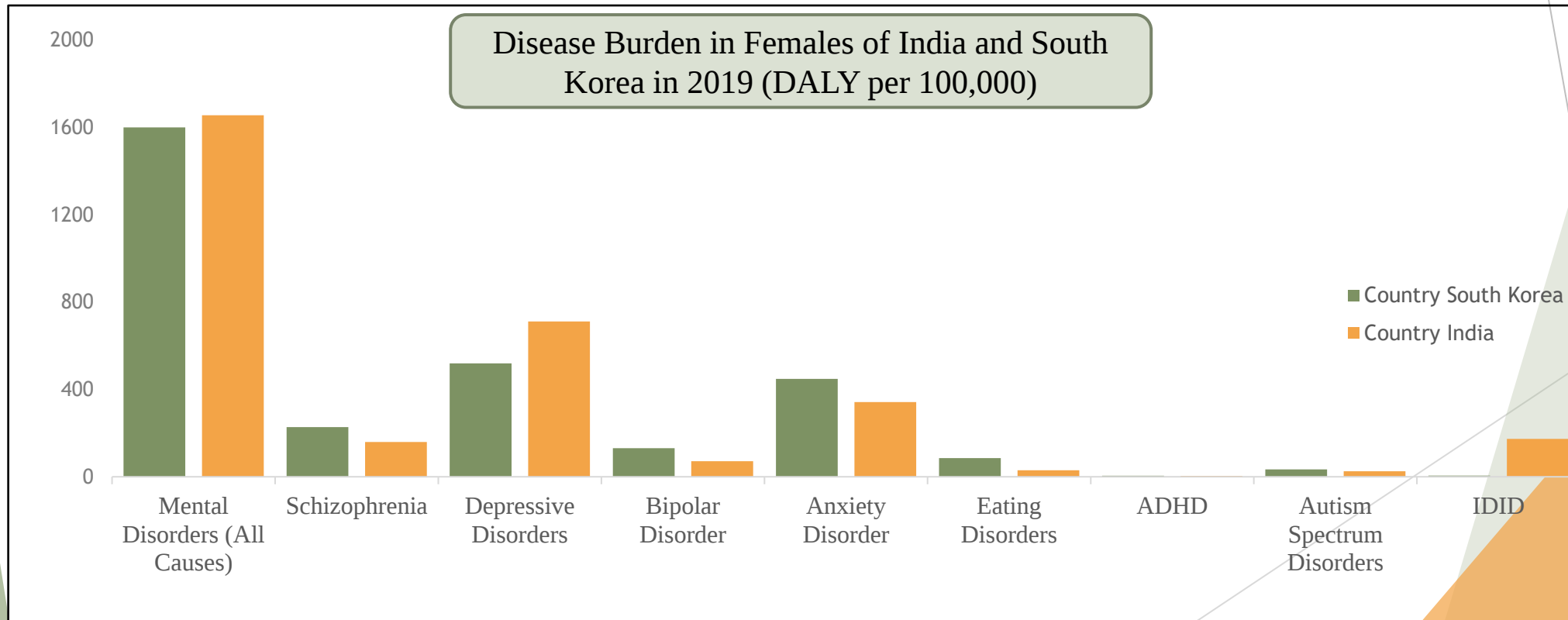
Comparing The Disease Burden

- The overall burden is higher in India.
- Whereas the burden of schizophrenia, bipolar disorders, eating disorders, anxiety disorders, autism spectrum disorders, ADHD was higher in South Korea in 2019. Women in both the countries had higher DALY as compared to men (all ages)



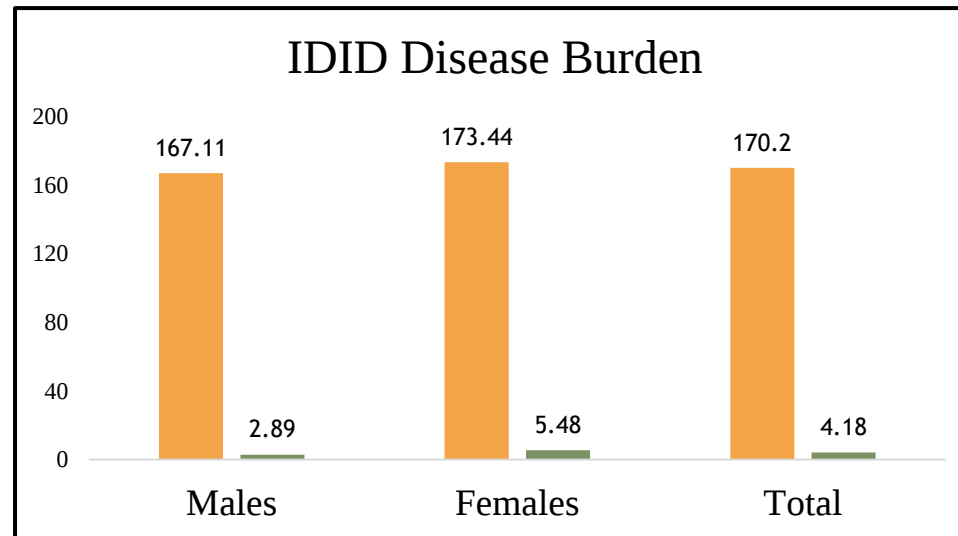
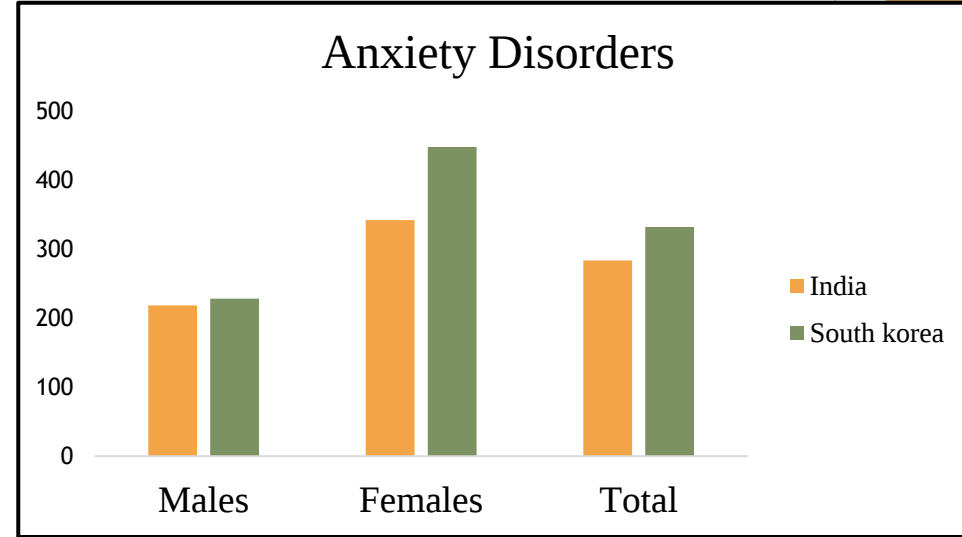
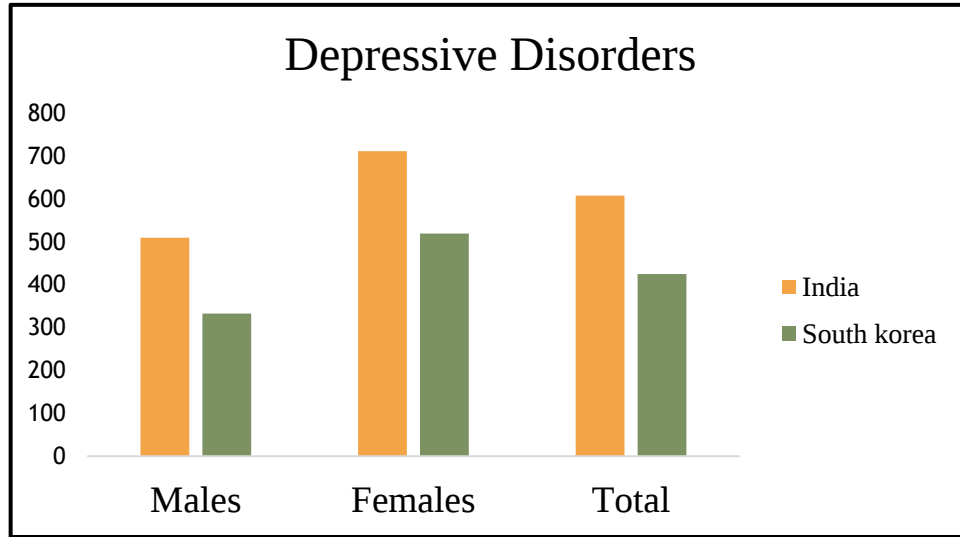
Comparing The Disease Burden

- Females in India had a higher mental health disease burden than the females in South Korea because the burden of depressive disorders and IDID were significantly higher in Indian females



Comparing The Disease Burden

The following graphs represent disease burden across both sexes (DALY per 100,000)





Digital Mental Health Market In India and South Korea

Overview

- India is among the few countries that has emerged as one of the fastest-growing digital economies over the past few years, characterised by 90% growth in terms of digital adoption index between 2014 and 2017
- To improve upon quality and accessibility the Indian healthcare sector has adopted a digital transformation
- The digital healthcare market in India stood at \$116.61 billion in 2018 and is expected to increase at a **CAGR of 27.41% to \$485.43 billion by 2024**
- India has a rising burden of mental disorders, with many Indian health-tech start-ups focussing in this area to leverage technological applications

INDIA



SOUTH KOREA



- The digital healthcare market in Korea was estimated at around \$ 6.08 billion in 2020
- Korea faces rapidly rising medical expenses (6.8% versus an OECD average of 2.1%) due to rise in the rate of chronic illness and a rapidly aging population – over 40% of whom are expected to be over 65 by 2060
- To combat rising costs the government has implemented various measures aimed at expanding its digital health industry
- These include boosting investments in innovative technology development and enhancing regulations around digital healthcare products and services
- Although late but there are many new start-ups coming up in this space in Korea

Market Drivers

Common Market Drivers

- Increasing prevalence of mental disorders
- Prevailing Stigmas
- Improved access and services at affordable prices
- Novel inventions in software and services
- Increase in funding and investment
- Rising awareness amongst people
- A sense of authority to consumers
- Data driven feedback

Variant Market Drivers

- Rapidly aging population in South Korea
- Launch of numerous mental wellness applications in India
- Higher prevalence of depression in India

Market Restraints

The drivers for both the markets are almost similar, however restraints differ

South Korea

- Telemedicine is still prohibited in Korea and full-scale telemedicine as a sector has yet to open due to the limitations stipulated by the Medical Services Act
- Korea has been late to recognize the importance of healthcare data

India

- Inferior technology infrastructure
- Lack of structured regulations
- Lack of digitized data of patients
- Complex multi-layered ecosystem

Competitive Landscape

INDIA

- Indian mental health applications provide a wide spectrum of services ranging from prevention, identification, diagnosis, treatment to recovery and support
- Wysa, PsyCuration, Full Circle, YourDost, Peas, Good Apps, Headspace, Sparc, Moodlytics, Innerhouse, Zen Lounge, CareMe Health, Happy Mynd, Mindhouse, MindFit are some of the most popular applications in India
- Indian government recently launched the pilot version of Mental Health and Normalcy Augmentation System MANAS mobile app to promote health and wellbeing in the country
- CBSE board launched the 'CBSE Dost For Life' Android app for its students which has over 80 volunteer counsellors and school principals onboard to offer counselling sessions during pandemic
- There are apps like Sattva which have a more traditional Vedic approach to dealing with mental wellbeing

SOUTH KOREA

- South Korea digital mental health market is quite fragmented with limited domestic players operating in the market currently
- Affluent players in this market include Gideb, Ybrain, Trost, Pibo, Fortify, Calming Blue and others

Conclusion & Limitations

Conclusion

- Mental health disorders are widespread in both India and South Korea
- The number of people getting treated are far less than those affected due to the similar stigmas that prevail in both these countries
- In order to combat the spread of these disorders both the countries need to take firmer actions, regulate the existing policies, and take advantage of the upcoming digital platform
- Countries will benefit and will be able to solve existing challenges if the focus is on making a technology-aided healthcare environment as the backbone

Limitations of the Study

- Gathering data was challenging, it was difficult to source data relevant to the study
- Disease burden considered is of 2019 and not 2020
- Exact mental digital health market size for both countries was unavailable hence the overall digital health market size was considered for comparison
- Limited information was available on South Korea Digital Mental Health Market

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Thank You

