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DATA ANALYSIS OF GLOBAL MENTAL HEALTH CRISIS DATASET USING TABLEAU

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Abstract— **This paper explores the Global Mental Health Crisis Index 2026 for 92 countries. The index comprises 29 indicators including depression, anxiety, suicide, treatment gaps and health workforces. Data was obtained from WHO (2024) Mental Health Atlas and The Global Burden of Disease Study (2023). The data allows researchers to assess how mental health systems are performing across countries, what resources are allocated to services, and how social, political, and economic factors affect mental health. Researchers can use this data to identify trends across regions and income groups, and to measure how policy impacts crisis severity.**

Keywords— **Global Mental Health Crisis Index, Depression Prevalence, Anxiety Disorders, Treatment Gap, Psychiatric Workforce Density, Mental Health Budget, Suicide Rate, Income Group Disparities, WHO Regions, COVID-19 Mental Health Impact, Social Media and Mental Health, Youth Mental Health, Healthcare Infrastructure, GDP and Mental Health, Global Burden of Disease, Mental Health Policy, Universal Mental Health Coverage, Low-Income Countries, Statistical Analysis, Cross-National Comparison.**

I. INTRODUCTION

Mental health is a problem around the world. The COVID-19 pandemic social media, economic inequality and politics have all made mental health worse. The Global Mental Health Crisis Index 2026 gives us a look at how different countries are doing with mental health.

This study looks at data from 92 countries. Uses 29 indicators to find patterns in mental health. The data helps us understand how big the treatment gap is, how well national mental health systems work and how economic development affects health.

A. Global Burden of Mental Health Disorders

health disorders are a leading cause of disability around the world. The Global Burden of Disease Study 2023 says that depression and anxiety disorders account for more than 10% of Years Lived with Disability. About 970 million people live with a health condition but most of them do not get any treatment. This shows how important it is to evaluate health systems around the world.

B. Impact of the COVID-19 Pandemic

The COVID-19 pandemic profoundly disrupted global mental health. Widespread grief, economic uncertainty, social isolation, and lockdowns collectively intensified psychiatric distress. The pandemic increased depression cases by 27.6% and anxiety disorder cases by 25.6%.

C. Socioeconomic Determinants and Structural Inequity

Mental health outcomes are influenced by national income, healthcare investment, governance quality, education, and social protection mechanisms. Low-income countries face the greatest mental health burden, characterised by inadequate psychiatric workforce, large treatment gaps, and minimal mental health budgets.

D. Role of Digital Technology and Social Media

Digital technology and social media present a dual impact on mental health. On one hand, they expand access to care in underserved areas. On the other hand, high social media usage is strongly associated with depression, anxiety, and loneliness, particularly among young people.

E. Youth Mental Health Crisis

Young populations bear a disproportionate burden of mental health disorders globally. The Youth Mental Health Crisis Score is positively correlated with the overall crisis index, indicating that the quality of a country's mental health system has direct and significant effects on its youth population.

F. Objectives of the Study

The primary objectives of this study are: (1) to map the distribution of mental health crisis severity across nations; (2)

to quantify the relationship between economic development and mental health outcomes; (3) to identify the strongest predictors of national crisis severity; (4) to evaluate regional and income-group disparities; and (5) to provide evidence-based policy recommendations.

II. LITERATURE SURVEY

Whiteford et al. conducted a detailed study on the global burden caused by mental and substance use disorders. Their research identified depression and anxiety as major contributors to disability worldwide and highlighted the growing importance of strengthening mental healthcare systems, particularly in developing countries. [1]

Patel et al. discussed the challenges in achieving sustainable global mental healthcare. The study explained that low- and middle-income countries face serious problems such as shortage of mental health professionals, poor healthcare infrastructure, and insufficient funding. The authors suggested integrating mental healthcare into primary healthcare services to improve accessibility. [2]

Twenge et al. examined the impact of social media usage on adolescent mental health. Their findings revealed that excessive screen time and social media exposure are associated with higher levels of depression, anxiety, loneliness, and suicidal thoughts among teenagers and young adults. [3]

The WHO Mental Health Atlas studies provided comprehensive global data regarding mental health policies, workforce availability, infrastructure, and treatment accessibility. The reports revealed major inequalities between high-income and low-income countries in terms of psychiatrist density, healthcare investment, and implementation of mental health legislation. [4]

Chisholm et al. analyzed the economic and social benefits of expanding treatment for depression and anxiety disorders. Their study concluded that investing in mental healthcare services can reduce disability, improve productivity, and provide long-term economic advantages for society. [5]

Ritchie and Roser presented a global statistical overview of mental health disorders and highlighted that millions of people suffer from depression and anxiety worldwide. Their study also emphasized that access to mental healthcare services remains highly unequal across different countries and regions. [6]

The World Mental Health Report emphasized the need to transform global mental healthcare systems through improved accessibility, awareness programs, and community-based mental healthcare services. The report recommended increasing investments and policy support to strengthen mental healthcare delivery. [7]

The World Bank highlighted the relationship between economic development and mental health outcomes. Their report explained that poverty, unemployment, and financial instability increase mental health risks, especially in low-income countries where healthcare systems remain underdeveloped. [8]

The United Nations Sustainable Development Goals report stressed the importance of mental health in achieving overall well-being and sustainable development. The report encouraged countries to include mental healthcare services within national health policies and welfare programs. [9]

The Centers for Disease Control and Prevention provided statistical information about mental health conditions and their growing impact on public health. The report emphasized the importance of early diagnosis, awareness, and preventive healthcare strategies. [10]

The National Institute of Mental Health presented global statistics related to depression, anxiety, and other mental disorders. Their findings showed that mental illnesses affect millions of people annually and often remain untreated due to lack of awareness and healthcare access. [11]

Vigo et al. estimated the actual global burden of mental illness and argued that mental health disorders are often underestimated in public health discussions. Their study emphasized the need for more accurate data collection and improved policy planning. [12]

Rehm and Shield studied the global impact of mental and addictive disorders on healthcare systems and society. Their research showed that substance abuse and mental health disorders significantly contribute to disability and economic burden worldwide. [13]

Saxena et al. discussed the importance of implementing comprehensive mental health action plans globally. Their work focused on strengthening mental health policies, improving healthcare services, and promoting awareness at community levels. [14]

Corrigan et al. explored the impact of stigma associated with mental illness. Their study found that social stigma often prevents individuals from seeking professional help, leading to delayed treatment and worsening mental health conditions. [15]

Kessler et al. examined the age of onset of mental disorders and found that many mental illnesses begin during adolescence or early adulthood. The study emphasized the importance of early intervention and youth mental healthcare support. [16]

Moreno et al. studied the effects of the COVID-19 pandemic on mental health and healthcare systems. The researchers found that fear, social isolation, unemployment, and uncertainty during the pandemic significantly increased levels of stress, anxiety, and depression across populations worldwide. [17]

Torous et al. investigated the role of digital technologies in mental healthcare during the COVID-19 period. Their study highlighted that telemedicine, online counseling, and digital therapy platforms helped improve access to mental healthcare when traditional healthcare services were disrupted. [18]

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Lund et al. explored the relationship between social and economic conditions and mental health outcomes. Their study showed that poverty, unemployment, inequality, and lack of education are strongly linked to higher mental health risks and poor treatment accessibility. [19]

OECD reports emphasized the importance of improving national mental health systems through increased funding, policy reforms, and workforce development. The study highlighted that stronger healthcare systems are associated with lower mental health crisis severity. [20]

III. METHODS

The dataset used in this study comprises 92 country records drawn from the WHO Mental Health Atlas 2024 and the Global Burden of Disease Study 2023. Records span six WHO regions and four World Bank income groups, encompassing 29 variables detailing population demographics, health epidemiology, healthcare infrastructure, financial systems, and social and policy environments.

Key variables include Depression Prevalence, Anxiety Prevalence, Suicide Rate, Psychiatrist Density (per 100,000 population), Mental Health Budget (as a percentage of national health expenditure), and Treatment Gap. Statistical analyses were conducted using Python, and data visualisations were produced using Tableau.

Exploratory data analysis examined relationships between variables and the composite Mental Health Crisis Index. Among the highest-crisis nations, a majority are located in Sub-Saharan Africa, with Malawi recording the highest crisis index score, followed by Mozambique and Ethiopia. Ukraine's inclusion reflects acute mental health deterioration due to ongoing armed conflict.

IV. DATA VISUALIZATION AND ANALYSIS

A. Most Crisis-Affected Countries (Top 10)

The bar chart ranking countries by Mental Health Crisis Index reveals that the ten highest-scoring nations are predominantly located in Sub-Saharan Africa, with Malawi leading at a score of 87, followed by Mozambique (86) and Ethiopia (84). Ukraine (78) is a notable exception, reflecting acute mental health deterioration attributable to ongoing armed conflict. African nations dominate due to critically low psychiatrist density (averaging 0.18 per 100,000), near-total treatment gaps (90–97%), and minimal mental health budgets (under 1% of national health expenditure).

Fig. 1. Most Crisis-Affected Countries (Top 10) — Crisis Index and Treatment Gap

B. Best Performing Countries (Bottom 10 by Crisis Index)

Countries recording the lowest crisis index scores are primarily concentrated in Northern and Western Europe, with Norway (36), Switzerland (37), and Denmark (38) occupying the leading positions. Singapore (38) is the sole non-European nation in this cohort, reflecting its well-funded healthcare system and high internet penetration. These nations share high psychiatrist density (averaging 14–16 per 100,000), substantial

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mental health spending ($60–$210 per capita), relatively low treatment gaps (17–27%), and well-developed legislative frameworks.

Fig. 2. Best Performing Countries (Bottom 10) — Crisis Index, Treatment Gap & MH Spend per Capita

C. Regional Comparison of Mental Health Indicators

A multi-variable regional comparison reveals stark disparities across WHO regions. Africa records the highest mean crisis index (78.21) and the most severe treatment gap (91.5%), alongside the lowest psychiatrist density (0.18 per 100,000). The Eastern Mediterranean region exhibits the highest mean anxiety prevalence (7.23%), potentially reflecting chronic geopolitical instability. Europe, while the best-performing region overall (crisis index: 48.31), holds the highest psychiatrist density (14.46 per 100,000) and mental health budget allocation (5.77%). South-East Asia occupies a vulnerable middle position with a crisis index of 65.55 and workforce density of just 0.54 per 100,000.

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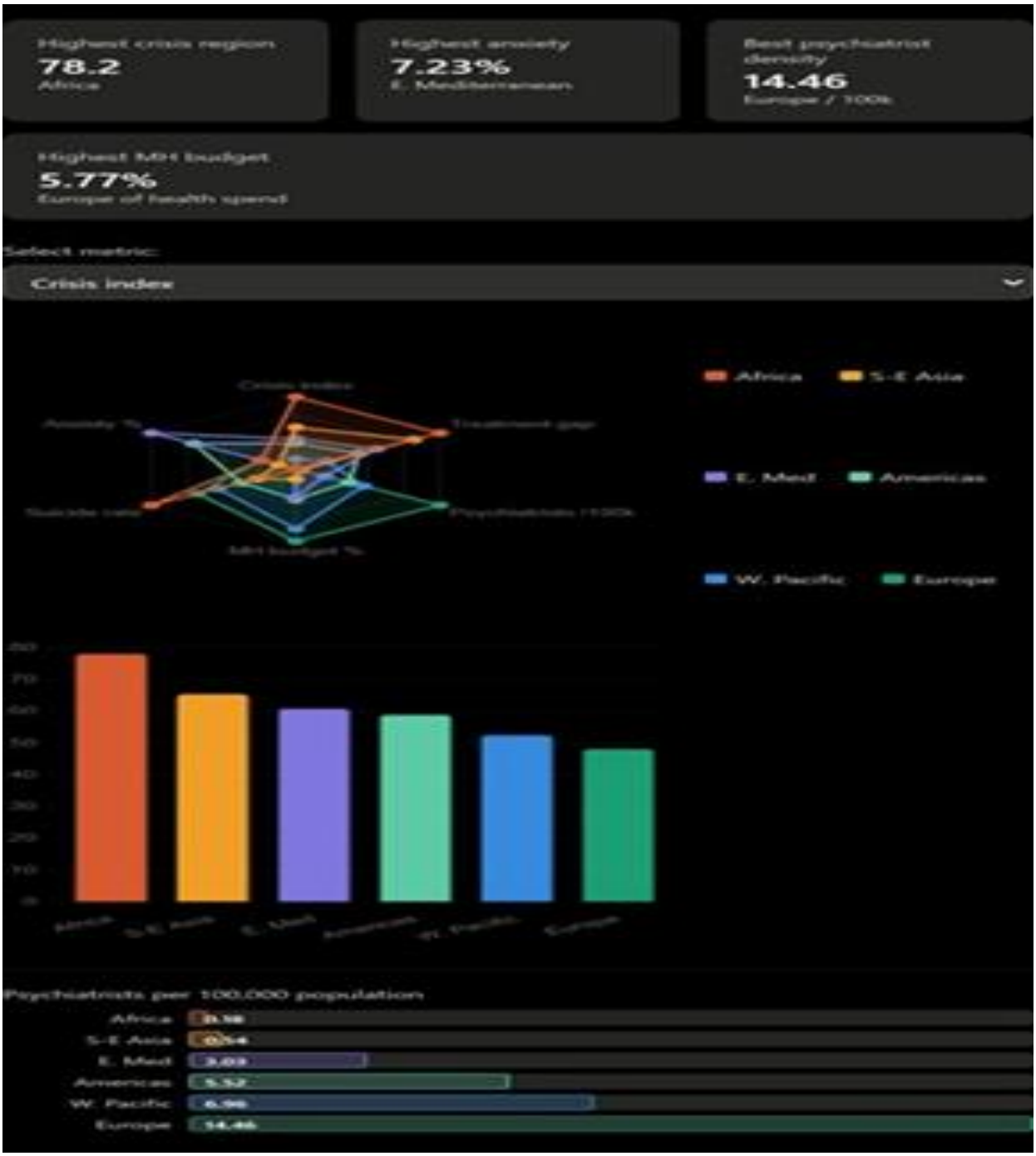

Fig. 3. Regional Comparison — Crisis Index, Radar Chart & Psychiatrists per 100,000 Population

D. Income Group Analysis: Crisis Index vs. Healthcare Investment

Analysis across income groups demonstrates profound economic determinism in mental health outcomes. Low-income countries average a crisis index of 81.38 with per-capita mental health spending of just $0.11, while high-income countries average a crisis index of 44.31 with spending of $96.57—a nearly 900-fold difference. Treatment gaps span from 94.25% in low-income countries to 27.14% in high-income nations, and psychiatrist density ranges from 0.10 to 16.02 per 100,000, representing a 160-fold disparity.

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Fig. 4. Income Group Analysis — Crisis Index, Treatment Gap, MH Spend & Psychiatrist Density

E. Key Correlates of the Mental Health Crisis Index

Pearson correlation analysis reveals a clear hierarchy of influence. The Youth Mental Health Crisis Score shows the strongest positive correlation ($r = +0.98$), followed by COVID-19-related mental health increases ($r = +0.97$) and treatment gap percentage ($r = +0.93$). On the protective side, income group ($r = -0.90$), mental health system score ($r = -0.88$), mental health budget percentage ($r = -0.85$), and internet penetration ($r = -0.83$) show strong negative correlations with crisis severity. Social media exposure ($r = +0.30$) is an emerging risk factor warranting greater policy attention.

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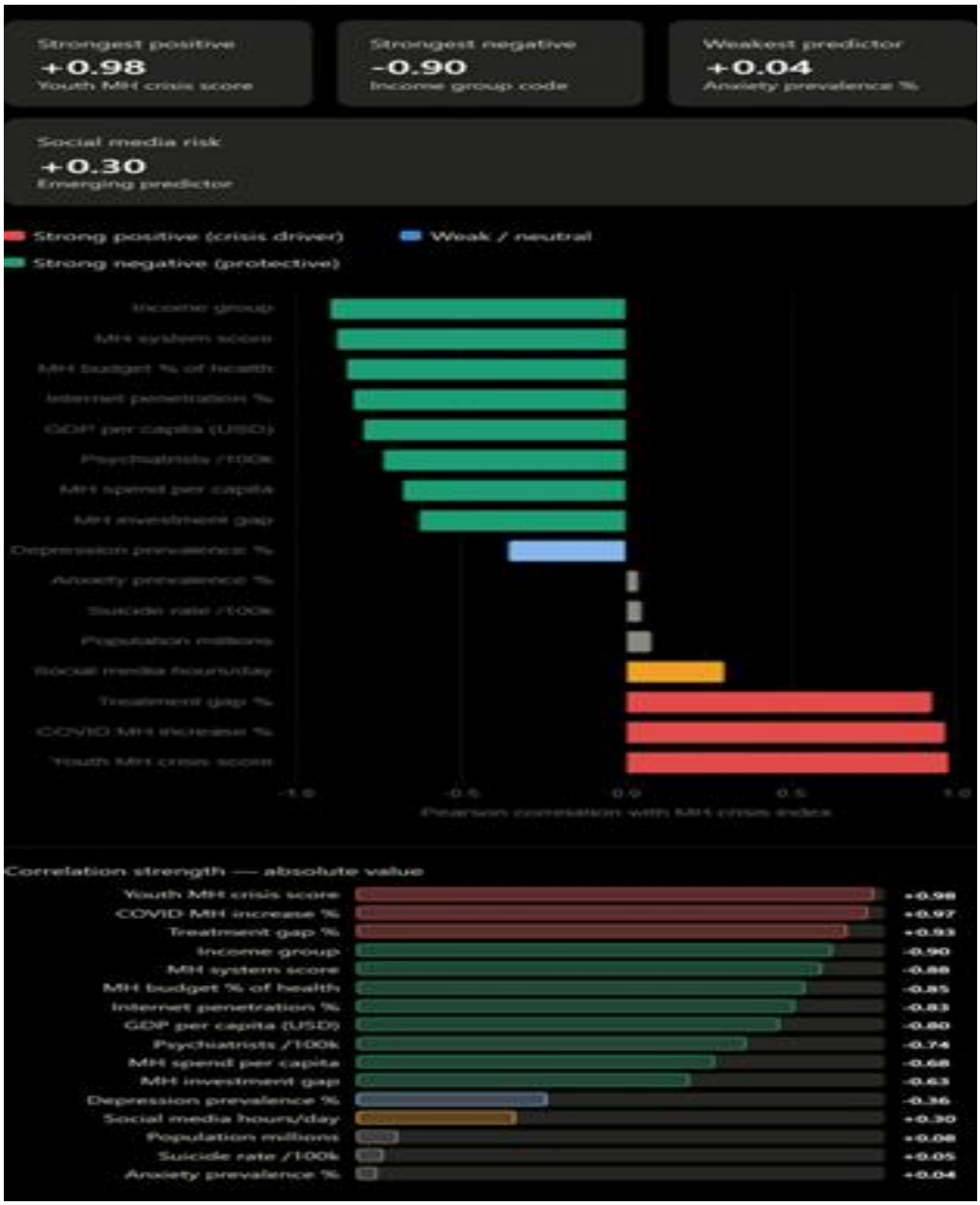

Fig. 5. Key Correlates of the MH Crisis Index — Pearson Correlation Analysis

F. Policy Coverage: Mental Health Laws and Policies

Analysis of 92 countries reveals that 72 (78%) have a formal mental health policy and 68 (74%) have enacted mental health legislation. However, 31 countries with formal policies still record treatment gaps above 90%, highlighting a critical disconnect between policy frameworks and operational capacity. The 20 countries with no mental health policy are almost exclusively low-income African and South-East Asian nations, with low-income countries showing only 45% policy coverage and 38% legislative coverage despite a 94.3% average treatment gap.

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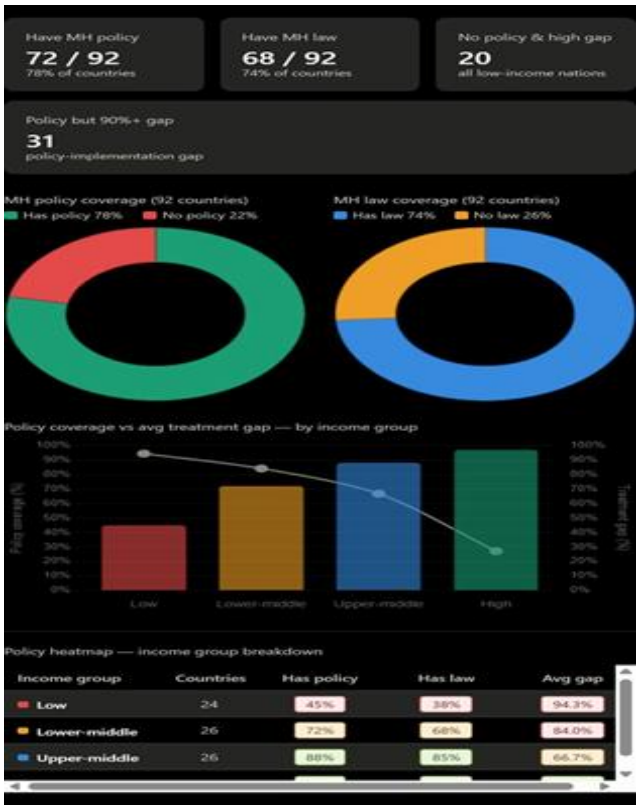

Fig. 6. Policy Coverage — MH Policy & Law Distribution, Coverage vs. Treatment Gap by Income Group

V. CONCLUSION

Analysis of the Global Mental Health Crisis Index 2026 dataset reveals a deeply inequitable global mental health landscape. Crisis severity is overwhelmingly concentrated in low-income African and South-East Asian nations, driven by near-universal treatment gaps, critically low psychiatrist densities, and negligible public mental health investment. In contrast, high-income European nations demonstrate significantly better outcomes due to robust healthcare infrastructure, comprehensive legal frameworks, and sustained government investment.

The strongest predictors of crisis severity are structural: youth mental health burden, COVID-19 pandemic impact, treatment gap, income level, and mental health system quality. These findings confirm that mental health outcomes are not primarily a function of biological or cultural susceptibility, but of systemic healthcare architecture and economic capacity. Social media exposure ($r = +0.30$) represents an emerging risk factor, particularly for youth populations, warranting greater policy attention.

Policy implications are clear: investment in mental health workforce training, increased budget allocations (targeting at least 5% of national health budgets), digital mental health scale-up in resource-limited settings, and strengthened international cooperation mechanisms are essential to closing the staggering global treatment gap. This dataset provides a powerful evidence base for policymakers, researchers, and global health organisations working towards universal mental health coverage.

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