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Leading Article

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Examining the tapestry of mental health crises in low- & middle-income countries: an intercontinental analysis of the contributing factors and instructive approaches

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ABSTRACT

In recent decades, the intricate landscape of mental health challenges has become a focal point of global concern, with particular urgency in Low- and Middle-Income Countries (LMICs). This manuscript delves into the multidimensional tapestry of mental health issues prevalent in these regions, offering an intercontinental analysis that seeks to unravel the contributing factors and proposes strategies for improvement. Through a meticulous examination of diverse sociocultural, economic, and healthcare-related variables, this study aims to provide a comprehensive understandingof the complex dynamics shaping mental health crises in LMICs. Through an intercontinental lens, our analysis aims to transcend geographical boundaries, examining the commonalities and distinctions inherent in the mental health landscapes of LMICs. This inquiry is driven by a dual commitment: to comprehensively understand the determinants of mental health challenges and to identify instructive approaches that can serve as foundations for targeted interventions. In navigating this intellectual terrain, our study not only strives to contribute to the academic discourse on global mental health but also aspires to inform policy and practice, fostering a nuanced understanding of mental health dynamics and cultivating evidence-based strategies to ameliorate the burden faced by individuals in LMICs. By synthesizing current research, empirical data, and theoretical frameworks, our exploration not only illuminates the challenges but also endeavors to identify instructive approaches for mitigating the impact of mental health issues in resource-constrained settings. The confluence of factors influencing mental health in LMICs demands an interdisciplinary lens, and this manuscript endeavors to navigate this intricate terrain with rigor and precision. . This article exposes the significant gap in mental health services, attributing this disparity to limited public funding, insufficient allocation for children and adolescents, and an inadequate distribution of funds in mental health infrastructure. The scarcity of mental health workers, particularly in primary healthcare settings, further exacerbates the problem. The contributing factors to mental health crises in LMICs include ineffective legislation, leadership, and national health policies, as well as cultural beliefs and stereotypes. The lack of a mental health information system further hampers meaningful progress in these regions.

There is a need for a comprehensive mental health system that considers cultural, social, and economic factors unique to LMICs. To address the challenges faced by LMICs, the article suggests strategies, including legislative reforms, policy development, public education to reduce stigma, and promotion of evidence-based interventions. By drawing on existing principles and considerations, the authors provide a specific system of mental health services grounded in community-based care and "mental health-in-all-policies" approach which advocates for rational investment

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allocations, considering social determinants, prevalence data, and the humane treatment of individuals with mental health issues in these regions.

INTRODUCTION

In the intricate tapestry of human existence and contemporary discourse, the interplay between individual well-being and broader societal advancement is underscored by the pivotal concept of mental health, encapsulating the resilience and vitality necessary for navigating life's multifaceted challenges. Defined by the capacity to adeptly manage stressors, unlock one's inherent potential, engage in effective learning and work, and contribute meaningfully to the community, mental health stands as an indispensable facet of overall well-being; mental health transcends the confines of individual psychological states [1].

This multifaceted construct, integral to both individual and collective well-being, serves as the linchpin for the exercise of autonomous choices, the formation of meaningful social bonds, and the potential to impact the broader socio-cultural milieu. Positioned as a fundamental human right, mental health assumes paramount significance in fostering personal development, enhancing community resilience, and catalyzing socio-economic progress. Central to the realization of fundamental human rights, mental health is not merely an individual concern but a linchpin for communal and socio-economic development. [1].

Nevertheless, the world is facing a mental health crisis due to the emergence of various mental health diseases. Numerous mental health illnesses have been identified and characterized, such as depression, generalized anxiety disorder, bipolar disorder, obsessive-compulsive disorder, post-traumatic stress disorder, schizophrenia, and many more. Mental illness is a problem that affects everyone equally. It impacts people of all ages, genders, races, and educational and socioeconomic backgrounds [1].

A well-developed mental health system includes organizations, institutions, and resources that have well-structured practice models focusing on extending the right to health for people with mental, neurological, and substance use disorders [2,3].An established mental health system can have a significant impact on the debilitating burden of mental illnesses worldwide [2,3].

Mental Health Crises in Low- and middle-incom countries:

Low- and middle-income countries (LMIC) host roughly 85% of the population of the world. A majority exceeding 80% of individuals grappling with mental disorders live in LMICs [4,5].Mental illness, along with substance abuse disorders, emerges as a significant contributor to the overall disease burden in these regions, constituting 8.8% and 16.6% of the total burden of disease in low-income and lower-middle-income countries, respectively [4,5]. On a global scale, the progress of mental health systems has been less than satisfactory, especially in LMICs, where the most disappointing developments have taken place. Neuropsychiatric disorders accounted for almost 4.9 % of the global burden of disease as of 2019 when measured with disability-adjusted life years. Among the large sphere of these mental health conditions; depression, schizophrenia, bipolar disorder, and alcohol use disorder are among the top 25 causes of disability[2,4].

Depression becomes the third leading cause of disease in low-income countries (LICs) and the second highest in middle-income countries (MICs) affecting around 300 million people and contributing alarmingly to increased suicidal tendencies. The most crucial connection identified is the association between suicidal risks and mental disorders, leading to an alarming 800,000 deaths annually, with a predominant occurrence among individuals aged 15-29 [2,4] .

Additionally, some suicidal risks stem from neurological disorders, while others result from the debilitating physical consequences of chronic diseases. Despite the substantial prevalence of mental illnesses, with children and teenagers at a heightened risk, there has been insufficient focus on enhancing mental health systems, particularly in developing nations [2,4] .The Lancet Commission on Global Mental Health and Sustainable Development in 2018 concluded that, despite the existence of effective interventions and affordable delivery methods, the widespread improvement of quality mental health services has not materialized in most countries [6].In response, the World Health Organization's Mental Health Action Plan (2013-2020) aims to prioritize the achievement of sustainable development goals that ensure healthy lives and promote well-being for individuals of all ages in all countries, claiming that underprivileged communities exist in even developed countries. Nevertheless, the focus of global mental health in our review has predominantly centered on particularly the resource-poor settings [2,4]. The absence of effective mental health and substance use services in LICs results in significant social and economic losses [7–9]. Individuals with severe mental health conditions, lacking alternative options, may be confined at home by well-intentioned but desperate family members or at traditional and religious healing sites. This situation hinders their access to education and employment, perpetuating "further marginalization, poor education, and reduced employment opportunities" [7].Mental health conditions frequently push individuals and families into poverty [10]. However, services for individuals are scarce, and family-based services are even more uncommon. Homelessness and inappropriate incarceration are prevalent among individuals living with mental health conditions, exacerbating their marginalization and vulnerability[11]. Further, against the backdrop of escalating international conflicts and the exacerbation of climate change, leading to population displacement and lifestyle alterations, there is a foreseeable surge in the demand for mental health and psychosocial support services.

Given the extrapolated context, it is imperative to undertake a comprehensive examination of the elements influencing mental health reforms in LMICs. Our objective is to furnish pragmatic approaches for tackling the inherent challenges. Consequently, we have rectified various deficiencies and outlined strategies for their resolution, categorized under the following themes :

FACTORS CONTRIBUTING TO MENTAL HEALTH CRISES IN LMICs

Insufficiency, inequitable distribution, and inefficient utilization of healthcare resources:

The uneven distribution of resources, encompassing financial allocations and the healthcare workforce, is a critical issue. An effective financial system should guarantee that the intended population can access necessary services without incurring economic hardships. Notably, there is a significant disparity in mental health funding between High-Income Countries (HICs) and LMICs, with governmental support in HICs being four times greater than that in LMICs [4] . Alarmingly, the majority of LMICs, including 15 out of 19 African nations, allocate less than 1% of their health budget to address the mental health challenges faced by marginalized populations. In addition, psychiatric beds are densely present near the city which limits mental health access by the rural population. To this context, large percentage of people with mental illnesses do not receive any form of treatment or care and an even greater number (up to 95%) do not receive even the bare minimum care and treatment [12] .

The World Health Organization (WHO) has identified the insufficiency, inequitable distribution, and inefficient utilization of healthcare resources as pivotal determinants contributing to the absence of care for a significant proportion of individuals afflicted with mental health conditions. Despite the well-established efficacy of both psychosocial and pharmacological interventions, the inadequate allocation and utilization of healthcare resources perpetuate a scenario where a considerable number of individuals are deprived of essential mental health care services. This ranking underscores the urgent need for comprehensive strategies and global cooperation to address the systemic challenges hindering the accessibility and delivery of effective mental health interventions to those in need[8].The insufficient provision of mental health care, particularly in LMICs, is attributed in part to limited public funding. In LICs, the median annual government expenditure on mental health is estimated at 0.08 USD per capita, whereas in lower-middle-income countries, it is 0.37 USD, and in HICs, it reaches 52.73 USD [13].Despite children and adolescents constituting a significant portion of the population in many countries, resources allocated to mental health for this demographic are notably inadequate. Most of the public mental health funds in LMICs, approximately 80%, are directed towards mental hospitals [7].While the crucial role of general primary healthcare staff in identifying and managing mental health conditions has been acknowledged for some time, they offer minimal to no mental health services in LMICs [14].Our observations indicate that referral pathways to accessible mental health services largely remain informal, with remoteness, cost, and stigma acting as major impediments to care for individuals and families.

Policy makers aiming to enhance the mental health of the population face pivotal choices in allocating resources to attain optimal outcomes. While scrutinizing the effectiveness and efficiency of interventions, encompassing clinical results and return on investment, is crucial in making these decisions, the practical realm of policy formulation introduces additional considerations [5].Political dynamics, historical context, community awareness, demands for care, understanding of etiology, severity of the condition, and local circumstances all exert significant influence [5].Rather than relying solely on precedent resource allocations, policy makers must proactively determine the allocation of resources for specific interventions to achieve the best results [5]. Despite advancements in tools like the WHO One-Health Tool and meticulous cost assessments for bridging mental health treatment gaps in certain nations, the intricacies of policy formulation introduce elements beyond scientific certainty. Therefore, a degree of "rational subjectivity" becomes both unavoidable and essential [15].While advocating for increased resources in mental health — a critical need given current minimal allocations — it is imperative to acknowledge that achieving full implementation of necessary mental health interventions remains a distant goal for most countries [4,15].A phased approach, characterized by a clear determination of optimal resource utilization, becomes imperative. Despite the predominant disease burden stemming from prevalent conditions like depression and anxiety, the lion's share of expenditure in many LMICs is directed towards the treatment and care of severe conditions such as schizophrenia and bipolar mood disorder [4,15]. Allocations for prevention and promotion activities are typically minimal or non-existent in LMICs. While these proposals may offer relevance to numerous LMICs, it is emphasized that each country has distinct needs and circumstances. As such, they are not presented as rigid formulas to be blindly applied but as broad suggestions necessitating local reflection, input, and scrutiny [2,1

A case study of Pakistan: Pakistan, like many other low-income nations, with a Gross National Income (GNI) approximately at $1375, demonstrates minimal regard for mental health. In general, there is a scarcity of specialized mental health professionals and facilities, a deficiency in financial resources, and insufficient funding allocated to mental healthcare. According to data from 2015, the occurrence of mental illnesses, encompassing depression and anxiety, was documented in 10% - 16% of adults [16] .Furthermore, 10% of the population experienced mental disorders, with 1% - 2% grappling with severe conditions such as bipolar disorder and schizophrenia.

These mental health diseases have widely diffused into the population due to terrorism, disruption of social ties, economic instability, and political turmoil. Further, a sharp surge was observed in these crises during the COVID-19 pandemic [16] .Pakistan currently needs to codify strategic policies and legislation with wider and strict implementation to overcome this grave threat of mental health burden across the country.

Ineffective legislation, leadership, and national health policies:

It underscores the significance of effective governance in supervising the mental health system. Well-formulated policies regarding mental health enhance the standard of service delivery and community care. An assessment of mental health policies or plans in developing nations revealed that over half of the LMICs lack a concrete action or plan. Additionally, more than half exhibit a dearth of foundational models, relying on policies derived from HICs and the WHO [2].This presents a drawback, as exemplified by the United States, which has devised costly agendas incongruent with the economic capacities of developing nations, thereby not aligning with their health outcomes. Furthermore,

policymakers often overlook the unequal distribution of resources between urban and rural areas, where, for instance, rural migrants in many countries are deprived of housing and medical benefits accessible to city residents. Moreover, effective leadership is crucial for improved governance, but there is an absence of a culture of training for public health leadership in developing countries, a critical component for enhancing governance [17]. The absence or ineffective execution of legislation is also among the significant barriers. The majority of LMICs do not have legislation. Past evidence showed drafting, approval, and implementation of legislation is often subject to prolonged delays. According to the World Mental Health Atlas, a survey that covered 156 nations, only 3% of low-income countries reported having mental health laws that were fully compliant with human rights instruments and in the process of being implemented. In contrast, the percentages were noticeably higher in lower-middle-income countries (14%), upper-middle-income countries (39%), and high-income countries (40%) [13].

Further, most developing countries have legislation, however, with limited reach and content to adapt to local and global architecture. The reason, many developing countries do not have adequate policies for budget priorities to fund the mental health workforce and to scale up the mental health services. Also, there are legal provisions in mental health legislation that can be two-pronged that can either increase or decrease the delivery of mental health reforms [17] .Hence, having a policy and legislative framework that is not implemented effectively can lead to an insignificant impact on the population concerned, as already observed in many countries.

In Pakistan, the realm of mental health legislation exists predominantly in written documentation, lacking substantive implementation. Since the country's attainment of independence to the contemporary era, legislative frameworks pertaining to mental health have been instituted; however, these provisions exhibit a discernible dearth in the explicit inclusion of mental health considerations [16]. Furthermore, the existing legal structures exhibit a notable absence of robust accountability mechanisms, thereby diminishing their efficacy in safeguarding and promoting mental well-being. This incongruity between legislative intent and practical implementation underscores a critical gap in the legal infrastructure governing mental health in Pakistan, warranting a comprehensive reassessment and augmentation of extant legal frameworks to better address the evolving challenges within the domain of mental health [16].

Human Resource Inequities in Mental Healthcare: The positive correlation between the number of health professionals and favorable health outcomes is evident. However, the current ratio of available healthcare workforce falls short of meeting global demands. Data from LICs and LMICs reveal a median of only 1.4 and 3.8 mental health workers per 100,000 population, respectively, in contrast to 62.2 in HICs [13].

The inadequacy of wages discourages many from choosing mental health care as a profession. Research indicates a need for 239,000 workers to ensure sufficient care in low-middle-income countries, yet the current availability is only 1 per 100,000. To illustrate, Nigeria has merely 150 psychiatrists for a population of 186 million, and Nepal's mental health services are concentrated in urban areas, with 0.22 psychiatrists and 0.06 psychologists per 100,000 people[2,4].In major developing nations such as India, Pakistan, Nigeria, and Ethiopia, the ratios of mental health professionals are 0.301, 0.185, 0.06, and 0.04, respectively, underscoring a substantial treatment gap [2,4].Furthermore, these services are predominantly urban-centric, lacking district-level accessibility.

In Pakistan, the country faces a considerable deficit in psychiatric resources, with a ratio of 21 psychiatric beds per 100,000 individuals, of which merely 7% are allocated for pediatric patients. Despite having fewer than 500 psychiatrists and only four major psychiatric hospitals, the existing infrastructure proves insufficient to effectively address the nation's escalating mental health challenges [2,4]. A mere 0.4% of the health budget is currently designated for mental health, a meager allocation that is unlikely to bridge the widening gap, particularly given the rising incidence of new neurological disorders and the resultant impact on mental health-related expenses. Compounding the issue is the inadequate recruitment of mental health educators in educational institutions, significantly impacting the well-being of students [18,19] .As a remedy, there is a pressing need for the judicious distribution of mental health expenditures and the establishment of professional mental health cadres, both in urban and rural settings within these developing nations.

Cultural beliefs and stereotypes: Cultural and religious convictions play a pivotal role in shaping attitudes towards seeking assistance for mental health issues, influencing both the initial recourse for aid and subsequent outcomes. In certain instances, individuals turn to religious entities, peers, shrines (mazarat), Hakeem, and homeopathy as their first line of seeking help and remedy, exhibiting a diminished trust in conventional medical professionals. The utilization of therapeutic methodologies for enhancing mental well-being is often perceived as being rooted in Western ideologies and incompatible with the religious beliefs prevalent in developing Asian nations [20,21]. Generally, the societies in LMICs are typically more receptive to religious rhetoric and sermons than to scientific ideas. They are less able to refute logical fallacies and pursue the truth using the science of reasoning, which allows these conspiracy ideas to further entrench themselves in their minds [20]. Additionally, mental illnesses are frequently ascribed to cultural stigma and perceived as divine retribution for misdeeds. These deeply ingrained beliefs contribute to a reluctance among affected individuals to avail themselves of mental health services, leading to heightened feelings of isolation, loneliness, non-compliance with treatment regimens, and a propensity towards resorting to illicit drugs [20,21].

In many LMICs, mental health concerns are not only marginalized but also subject to mistreatment. Given the strong emphasis on family ties in these developing nations, stigma often emanates from parents, family members, and the broader societal context. For instance, a study revealed that 95% of employers refrain from hiring individuals with mental health issues for any position, reflecting pervasive societal biases. Furthermore, many individuals feel reluctant to openly discuss their mental health experiences, hindering

their recovery, particularly due to time constraints imposed by healthcare professionals [2,4].Recent reports underscore instances of inhumane treatment within mental health services, particularly in terms of isolation and detention. Likewise, In Pakistan, this stigma significantly impedes the uptake of mental health services, underscoring the pressing need to afford individuals affected by mental illnesses respect and motivation to ensure the delivery of appropriate mental healthcare. Despite an overall improvement in the public perception of mental illness, the stigma associated with mental health conditions remains more potent than that associated with other diseases and disabilities [2,4].

Natural and man-made disasters: The incidence of emotional and mental health crises in developing countries is further aggravated by natural and man-made disasters such as war, terrorism, earthquakes, epidemics, and famine. Widespread economic slowdown and poverty, as a result, shift focus to areas other than mental health. People affected by material deprivation due to these calamities have a higher risk of mental illness. In addition, COVID-19 has been the potent accelerator of stress and depression among the masses. Steps taken such as quarantine, isolation, social distancing, home confinement, and limited access to mental health care have impacted people globally [22].To exemplify, recent floods in Pakistan have caused mass-level destruction to infrastructure and the economy opening doors to unemployment and emerging mental health crises. According to reports, 650,000 pregnant women have been affected by floods giving birth to children who subsequently develop cognitive deficiencies. Despite all this, 55 of 80 districts were under floods, and none of them had a single psychiatrist highlighting the gruesome impact of these disasters on people and society at large [23].

Mental health information system: Most LMICs countries do not have a system for reporting of basic mental health information due to absence of mental health indicators. The absence of a reporting system contributes to poor planning and the inability to measure change based on mental health reforms, and hence this WHO slogan aptly summarizes — "What is measured is done" highlighting that there must be markers to identify the progress. In addition, despite some countries having the reporting system do not get their data published. This unavailability of data makes it difficult for the policy makers to plan targeted interventions [21]. Further, the limited research on mental health is impeded by lack of budget and rusted policies, posing a major setback towards developing an efficient mental health information system. Mental health research generally assumes a low priority globally as the global percentage of research output on mental health relative to total research output was only 4.6% in 2019. It is not surprising that the corresponding proportion was even much lower in LMICs [13,24].

Evidence-based interventions: Most rural areas are unaware of mental health services due to a more urban-centric approach. As a result, the non-evidence-based interventions have catapulted, and this is ascribed to the lack of resources and public health training among healthcare professionals. There are no formal institutions to train community healthcare leaders on advanced mental health treatments. To this end, psychotherapeutic interventions and cognitive behavior therapy recently gaining popularity remain under-utilized in these countries [4,17].The use of sports and physical activity has garnered little attention over the past decades. To further limit the treatment options available, both antipsychotic and anti-depressant medicines have been made more expensive in the developing world where minimum wages are already low. Also, scarcity of attention given by pharmaceutical companies to market new psychotropic drugs have further squeezed the availability of treatment options [21] .The evidence-based interventions, thus, have become the need of the hour to comply with the current advancements in the mental health systems.

Socio-demographic factors: The limited number of resources and social factors in LMICs cause a greater surge in mental health among certain population sub-groups and communities. Poverty, urbanization, and lifestyle changes are facilitators of lower quality of life and well-being indicators. Extreme poverty further intensified by COVID-19 increased mental health crises. Of the most significant population in LMIC, children have an increased risk of psychiatric disorders [2,22].21.5% population covers young children in Pakistan with increased risks of schizophrenia. Lack of social support from family members is another factor in many countries. In addition, domestic violence and abuse among women and children are prevalent. In Africa, more than 83% of children face psychological abuse Women have limited access to community and economic resources and are labeled and shamed due to the patriarchal environment [2,22] .This creates a pressing need for attention to public education and awareness to achieve social and behavioral changes among the public in these developing countries.

Lack of intersectoral collaboration: The absence of intersectoral collaborations between mental health and general health, policy makers and researchers, and community and specialty-based settings needs critical attention. Global mental health is based on various foundational elements, including acknowledgment of the burden associated with mental illness and the existing treatment gap, community-based and specialty care in mental hospitals, equitable and affordable access to mental health services for the minority, poor and rural populations, and sufficient collaboration between the mental health care and other health and non-healthcare departments [4,17] .

DISCUSSION

This study explores the complex web of mental health problems that are common in resource poor settings, providing a transcontinental analysis that aims to identify the underlying causes and suggests remedial measures. By carefully analyzing a wide range of sociocultural, economic, and healthcare-related factors, this research attempts to offer a thorough grasp of the intricate dynamics influencing mental health crises in LMICs. This investigation is motivated by gaining a thorough understanding of the factors that influence mental health issues and to pinpoint strategies that can act as the cornerstones in abridging the gap in various areas of mental health system in developing countries. Condensing the evidence and factors above, we have identified multiple areas of improvement and hence have devised the following strategies for focused interventions.

STRATEGIES TO IMPROVE MENTAL HEALTH IN LMICs

Enforcing legislation and developing explicit policies:

There should be active national health policies that conform to local guidelines and needs. They should struggle to enforce effective legislation with subsequent implementation. Also, all the stakeholders show consent for allocating a benchmark of the national budget to mental health. A way forward towards passing legislation that aims to protect human rights within and outside health can help achieve the objectives in the long run [12,21] .Provisions in legislation can encompass fomenting policies on retrenchment of psychotropic medicines, updating the essential medication lists with novel treatments, protecting the rights of mental health service consumers, providing mechanisms to oversee treatment practices, creating channels to implement mental health legislation, ensuring human rights in mental hospitals, channelizing intersectoral collaborations, increasing mental health literacy and escalating expenditures on mental health care .Structuring policies as mentioned can enhance the achievement of the objectives of the mental health action plan for the coming future in Pakistan and elsewhere [12,21]

Ensuring equitable delivery of mental health services:

Mental health services are the foundational stones to strengthening mental health systems in LMICs, These building blocks include ensuring the existence of a mental health regulation, provision of mental health facilities for outpatient, community-based, and day treatments, making the no. of beds in mental hospitals according to the global requirement per 100,000 of the population, creating economical availability of medicines in mental hospitals, and normalizing the use of these facilities in ethnic and minority groups [12].

The strategic planning to provide these services depends on three crucial factors: (i) Structure of service. Which areas should be given funding priority (hospital vs. community-based; primary care vs. specialized care), (ii) Assessing the target population needs (children vs. adults; persons with less severe disorders vs. persons with severe mental disorders; the general population vs. vulnerable groups such as abused women, the elderly, persons with disabilities, ethnic minorities, migrants), (iii) Geographical region. (Urban vs. rural areas, areas where persons with mental disorders are underserved vs. areas where natural disasters have placed people at increased risk). Equally important is to effectively utilize the available resources e.g., some developing countries despite having adequate no psychiatric beds in tertiary care only allow the service to get utilized by a limited patient count [12].Hence, the allocation of sustained resources must be built on these important factors to ensure widespread coverage of the population concerned.

Achieving social and behavioral changes through public education:

The uplifting of human rights and abating conventional stereotypes can be achieved through education and social contact. Education is a better strategy to increase mental health literacy where people are provided with factual stats on the impact of reducing stigma on mental health and leaning on the advice of medical health professionals rather than fabricated religious healers. This strategy would be an appropriate targeted intervention for rural areas where dogmatic attitudes are dominant. Social contact is another strategy that has been evaluated to have a good impact in the short run [2].

In LMICs, where health budget is a major concern, educational strategies seem more economical and sustainable as it involves spreading information through community groups, local health workers, mobile phones, internet posters fliers, etc. to curtail stigma, and those facilities are easily manageable by LMICs [2].Moreover, these educational strategies must be tailored according to the particulars of the affected population e.g., whole populations or population subgroups defined by age, gender, specific risk or vulnerability; the setting where the interventions take place, i.e., workplaces, schools, and families; and about particular mental illnesses.

A survey conducted in 14 countries asserted the need of mental health educators in universities and schools for the emotional wellness of students [25].Professional groups with targeted interventions and awareness campaigns on mental health need to be recruited. Mental Health professionals in primary and secondary schools should be given priority. Scientific articles and videos can be published to educate people about natural disasters. School education should include prevention and promotional activities which include social skills, emotional communication skills, and stress management to reduce proportion of the large majority of children affected with mental disorders [18].

Embracing intersectoral collaboration and primary health care services:

Mental health care in LMICs rests mainly on providing care in mental hospitals while little development is made on shifting this to primary or community-based services. To mitigate this gap, there can be refresher training programs for primary healthcare doctors along with organizational integration of services with specialty care hospitals. In low-resource settings, the emphasis should be incline toward on enhancing the identification and treatment of individuals with mental illnesses in primary care settings. In medium-resource settings, the proposal extends to the further development of general adult health services, encompassing out-patient clinics, community mental health teams, acute in-patient services, community residential care, and work or occupational services [24] .

More healthcare workforce at the primary level will reduce referral to tertiary care health centers, hence, preventing the overload to the already burdened health economy. Equitable distribution of health care workforce in cities and rural areas should be encouraged [2,4].In addition, services at the secondary level should also be prioritized. Also, a management strategy, task shifting, is an opportunity to overcome the shortage of the healthcare workforce at primary healthcare centers. Task shifting involves the rational redistribution of tasks to individuals that were not within their scope of work. For instance, delegating tasks from more trained mental health providers to providers with less training and experience to make up for the shortage of mental health care workforce and increase access to mental health services [24] .However, this can create dissatisfaction among the general public on the treatment received. Encouraging adequate allocation of

resources and services is a useful strategy in resource-poor settings [24].

The extent of collaboration between mental health and other healthcare departments in low-income countries is proportionally half that of HICs as of 2020. Collaborations of mental health practitioners and therapists must be improved by coordinating activities with professionals from other health and non-healthcare departments to evaluate mental health interventions [9,25].

The collaboration between mental health and general health practitioner deems important as many comorbid conditions increases the toll of mental illnesses. Further, supporting mental health professionals in health districts to enhance coordination with social healthcare departments, NGOs, and rehab centers [26].Also, encouraging collaborations between academia at institutions or university levels and mental healthcare centers to recruit more mental health trainers in educational institutions who can guide and formally train future generations about various mental illnesses. To this end, dedicated personnel rather than dedicated ones pertaining to the specialty of mental health ones may deliver superior care, even among community health workers [9,25].

Evidence-based interventions, monitoring, and research in mental health:

There is a strong need to advocate evidence-based interventions, such as psychotherapeutic interventions, cognitive behavioral therapy, pharmacotherapy, and physical activities. These will not only help treatment but also reduce trust in faith healers or religious healers who are continuously misleading communities due to the lack of awareness and education. Community-based rehabilitation centers for schizophrenic patients should be promoted [21] .Fostering databases to generate reports on mental health services by the government health department and promotion of research on mental health should become a matter of interest. Research plays a pivotal role in identifying the specific health needs within a given context and recommending culturally appropriate interventions [21].

Mental health research can circumference focusing on advanced technologies to find a cure to mental health diseases and developing novel treatments for brain disorders. Recently an emerald project was a mental health strengthening research programme conducted in six low- and middle-income countries provided strategic interventions to improve mental health services in these countries. Hence, researchers from across various disciplines can jointly work with policy makers to project sustainable and workable recommendations [21,26].

A capacity building collaboration hub can accelerate the development of mental health research. In 2010, the National Institute of Mental Health initiated the Collaborative Hubs for International Research on Mental Health, focusing on enhancing capacity for mental health research in LMICs. These Hubs may offer capacity-building opportunities through mental health research training and specialized training in research methodology aimed at generating evidence for optimal strategies to reduce barriers to mental health treatment and have been successfully operating in developing countries for instance in Latin America [24].

Developing nations are now equally prone to this practice. For example, the India Research Management Initiative, which was introduced in February 2018, is a program designed to increase research capacity in India. Developing a baseline of data for upcoming policy development and funding opportunities, interacting with Indian institutions, and raising awareness of research management are some of its goal [27] . Similarly, the African Mental Health Research Initiative was founded in order to achieve comparable aims. Nonetheless, the programs also encountered a number of difficulties, such as inadequate compensation and demanding course loads [28].

Empowering mental health providers through training programs:

A skilled workforce is required to control the rising mental health issues. The workforce includes General physicians; neurologists and psychiatrists; community and primary health care workers; allied mental health professionals, such as nurses, occupational therapists, psychologists, and social workers. To achieve this, there must be training programs for these working professionals.Few courses provide opportunities to train future mental health planners and administrators [4,17] .To cope with this lacunae, international training and exchange options must be focused on for public health leaders in the future. The private firms operating in LMICs can provide increased funds to support these training programs [4,17].The best providers are small multidisciplinary teams, both at the primary care level and the specialized mental health level. These traits of mental health professionals may have a lasting impact on the way that mental health services are provided to the population [4,17].

FUTURE RESEARCH PROSPECTS

This research advocates for a comprehensive exploration of policy and health information indicators aimed at assessing the impact of policy changes and the reporting of mental health burden in developing countries. A pivotal aspect of this inquiry involves scrutinizing the knowledge, attitudes, and perceptions of mental health care within the mental healthcare workforce in these regions. This examination is imperative for identifying gaps and recommending targeted training programs and cost-effective interventions. Furthermore, the research underscores the importance of ongoing efforts to discover novel drug therapies to address emerging mental health diseases. Additionally, the study posits that a reevaluation of the general guidelines for Global Mental Health is crucial to tailor them to the specific challenges posed by environments with limited resources. This proposed research framework aims to contribute valuable insights to the enhancement of mental health policies and practices in developing countries.

CONCLUSION

The pursuit of mental health not only empowers individuals to lead fulfilling lives but also catalyzes the creation of resilient communities and fosters sustainable socio-economic progress. In the context of low and middle-income countries, several pivotal factors exert influence over the augmentation of mental health care, demanding strategic attention for tangible progress. Chief among these factors are the conspicuous absence of robust policies and legislation, the glaringly uneven distribution of resources, and the inadequate emphasis on establishing a comprehensive mental health information system. These gaps, if left unaddressed, pose formidable challenges to the overarching goal of

bolstering mental health in LMICs.

The imperative integration of mental well-being into the broader agenda for community improvement necessitates an inclusive approach that transcends considerations of minority or ethnic backgrounds in LMICs. To effect substantial progress, it is incumbent upon the national governments of developing nations to undertake proactive measures. This proactive stance entails the integrated delivery of effective prevention and treatment programs, underscoring the imperative for a comprehensive and cohesive approach. This approach hinges on the development and implementation of robust policies and legislation that create a supportive framework for mental health initiatives. Such a framework is foundational for fostering an environment conducive to the growth and sustenance of mental health programs.

To ensure the efficacy of mental health services, the issue of maldistribution of resources demands meticulous consideration to address the existing disparities and facilitate a more equitable reach across all segments of the population. This requires a strategic allocation of resources that transcends geographical and socio-economic boundaries, thereby fortifying the accessibility and effectiveness of mental health interventions. Equally crucial is the establishment of a robust mental health information system, forming the bedrock for effective planning, monitoring, and evaluation of mental health programs. This entails the systematic collection and analysis of data pertaining to mental health indicators. Such an information system empowers informed decision-making and judicious resource allocation, thereby fostering an environment conducive to evidence-based mental health initiatives. By incorporating these multifaceted elements into a holistic strategy, LMICs can markedly diminish the burden of mental illnesses and improve the overall quality of life and well-being for communities and societies in these regions. Thus, strategic amalgamation of policy fortification, resource equity, and information infrastructure is paramount for fostering a sustainable and effective mental health landscape in LMICs. In essence, mental health emerges as an indomitable force, a critical determinant that propels individuals towards their zenith and propels societies towards sustainable growth.

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