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# Evaluating Pakistan's mental healthcare system using World Health Organization's assessment instrument for mental health system (WHO-AIMS)

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## Abstract

**Background** Pakistan faces profound mental health challenges, which necessitate the urgent need for a comprehensive assessment of its mental healthcare system. A holistic understanding of the mental health landscape is essential to identify strengths, weaknesses, and existing gaps within the system, which can inform targeted interventions and policy enhancements to improve mental healthcare accessibility.

**Objective** The primary objective of this desk research is to conduct an in-depth analysis of Pakistan's mental healthcare system across various dimensions, guided by the World Health Organization's Assessment Tool for Mental Health Systems (WHO-AIMS).

**Methods** Data for this desk research and scoping was obtained through desk research, including an examination of existing policies and legislation and consultations with various health facilities across Pakistan. This comprehensive analysis focused on six critical domains within the WHO-AIMS framework: policy and legislation, mental health services, integration of mental health into primary care, public awareness and collaboration with other sectors, human resources, and monitoring and research initiatives.

**Results** The findings provides a snapshot of strength and opportunities for improvement in Pakistan's mental healthcare system that can serve as the foundation for revising and updating national priorities. Key areas of focus include enhancing policy and legislation, expanding access to mental health services, improving existing initiatives for better integration of mental health into primary care, improving public awareness and sector collaboration, addressing human resource challenges, and strengthening monitoring and research initiatives.

**Conclusion** This desk research provides a roadmap for refining and enhancing Pakistan's mental health ecosystem and informs the prioritization of mental health campaigning efforts.

**Keywords** Pakistan, Country profile, Mental health system, WHO-AIMS (assessment tool for mental health systems)

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## Background

The Islamic Republic of Pakistan, situated in South Asia, is classified as a low- and middle-income country with a geographical area of approximately 803,940 squares kilometres. Its estimated population as of 2023 is 240,485,658 people [1]. Pakistan is linguistically diverse, with several major languages spoken throughout the country. These include Punjabi, Sindhi, Saraiki, Pashto, Balochi, and Urdu, which is the national language. Punjabi is the largest ethnic group in Pakistan, followed by Sindhi, Saraiki, Pashtun, Balochi and Muhajir [2]. Nevertheless, Pakistan comprises numerous sub-groups that speak languages distinct from those mentioned earlier. The majority of the population in Pakistan practices Islam, with Muslims being the largest religious community. However, there are also Hindu, Christians and other religious minorities present in the country [3].

Demographically, approximately 25% of Pakistan's population is under the age of 15, indicating a significant youth population. Meanwhile, 10% of the population is over the age of 65, representing a much smaller older population segment. The life expectancy at birth for males is approximately 64.22, while for females, it is 68.9 [1]. The majority of Pakistan's population, approximately 63%, resides in rural areas, indicating a predominantly rural society. However, urbanization is increasing, with more people migrating to cities in search of employment and better opportunities [4].

The literacy rate in Pakistan varies between genders. The literacy rate for males is 70%, while for females, it is 48% [5]. This indicates a gender disparity in access to education and highlights the need for efforts to promote female education and empowerment.

In terms of health challenges, Pakistan faces a significant burden of communicable and non-communicable diseases, including psychosocial challenges. The country has a suicide mortality rate of 9.7 per 100,000 individuals [6, 7]. Symptoms of depression and anxiety are reported in 10–16% of the adult population in Pakistan, indicating that a significant portion of the population experiences these conditions to varying degrees of intensity, from mild to severe [8]. Approximately 1–2% of the Pakistani population suffers from severe mental illnesses such as bipolar disorder and schizophrenia [9]. However, the national prevalence of mental illness remains limited. These disorders can significantly impact individuals' lives and require specialized care and treatment.

Despite the high burden, mental healthcare in Pakistan is severely inadequate due to certain factors, such as insufficient mental health facilities, a shortage of skilled mental health professionals, inadequate allocation of financial resources, lack of mental health legislation, and stigma associated with mental illness [6, 10]. The lack of effective leadership to implement appropriate mental health policies perpetuates these shortcomings [10].

It is essential to evaluate the mental healthcare system on various components, such as mental health policy, service delivery, human resources, and research, to gain a comprehensive understanding of the strengths, weaknesses, and gaps in the mental health system and develop targeted interventions and policies to address the challenges identified. This inquiry is a landscape analysis of the mental health system in Pakistan using a WHO-AIMs framework [11]. WHO-AIMs are an assessment tool for mental health systems developed by the World Health Organization (WHO) to assess and monitor the development of mental health systems in low- and middle-income countries.

A previous analysis of Pakistan's mental healthcare system using the WHO-AIMs framework was last published in 2009 [12], and an updated report was released in 2020 using the WHO ATLAS questionnaire [6], albeit with less comprehensive detail. However, there is a critical need for a thorough and updated mental health country profile using the WHO-AIMs framework, given the shifting demographics, evolving health trends, and changing social and economic conditions, to ensure the efficient allocation of resources.

## Methods

### Aim, design, and setting

This desk research and scoping was conducted to provide a comprehensive picture of Pakistan's mental health system. We used the WHO-AIMs framework toreport on specific domains related to mental healthcare access, services, research and programs in Pakistan [11]. The team (KD, TS, MH, MB and OQ) scoped for available secondary data through open-access databases and informal consultations with service providers to collect and extract publicly accessible information on service access.

Pakistan operates under a parliamentary democratic system. The National Health Services, Regulations, and Coordination Ministry (NHSRC) is responsible for the national-level provision of medical services, health policy formulation, and enforcement. The launch of the 18th Amendment to the constitution in 2010 decentralized the management of healthcare to its four provincial governments [13].

Since then, healthcare in Pakistan has been governed primarily by provincial and federal governments. Service delivery is predominantly carried out by both the public and private healthcare sectors in all provinces. The public sector follows a three-tiered system, starting from basic health units (BHUs) and rural health centres (RHCs) at the primary level, Tehsil headquarters hospitals (THQs) and district headquarters hospitals (DHQs) at the secondary level, and teaching hospitals at the tertiary level.

The private healthcare sector, including hospitals, clinics, and diagnostics, also plays a significant role in providing healthcare services [14].

The public sector provides care in both urban and rural areas, but the quality and standardization of care vary significantly [15]. There are disparities in private health coverage as well, which is limited to urban areas. This disparity is further compounded by government spending patterns that prioritize large urban hospitals. Hence, primary prevention and primary mental healthcare services do not receive adequate attention and resources [16].

#### Study instrument

We used the WHO-AIMS (Assessment Instrument for Mental Health Systems) for this desk research scoping as a standardized framework to comprehensively assess and analyse the mental health system in Pakistan [11]. This instrument provides a structured approach to capturing a holistic view of the mental health system and its various components. The WHO-AIMS instrument defines a mental health system as encompassing all the activities and resources dedicated to promoting, restoring, or maintaining mental health. It includes organizational structures, policies, legislation, services, human resources, public education initiatives, and collaborations with other sectors. The instrument is divided into six domains.

1. Policy and legislation: This captures the existing mental health policies, practices, and legislation in place at the provincial and federal levels.
2. Mental health services: This dimension describes the availability, accessibility, and quality of mental health services in a country.
3. Mental health in primary care: It focuses on the integration of mental health services into primary care settings and training and support provided to primary care practitioners.
4. Human resources: This highlights the availability, distribution, and capacity of mental health professionals in a country.
5. Public education and links with other sectors: It describes efforts to raise public awareness about mental health, reduce stigma, and establish collaborations between the mental health sector and other sectors, such as education, employment, and social welfare.
6. Monitoring and research: It assesses the availability and utilization of data systems for monitoring mental health indicators, research activities in the field of mental health, and the integration of research findings into policy and practice.

These domains further consist of 28 facets and 156 items, allowing for a detailed assessment of the mental health system [11]. By utilizing this standardized instrument, we aim to systematically extract information on mental health from existing records and evaluate the various aspects of Pakistan's mental health system. The WHO-AIMS instrument has been successfully employed in other low- and middle-income countries (LMICs), enabling meaningful comparisons and facilitating policy development and system-strengthening efforts [12, 17].

#### Data collection and analysis

We used various methods, including desk research, consultations (via phone and email), and scoping surveys. For desk research, we conducted a desk review of secondary data to develop WHO-AIMS profile through open-access databases (e.g. google scholar, PubMed, WHO's MindBank and Atlas, Mental Health Innovation Network and National databases and statistics etc.) for our search. The inclusion criteria and exclusion criteria for our search is as follow:

1. Reports, documents, surveys, reports and publications related to mental health policies, legislation, mental health services and its integration into the primary care services in Pakistan at both provincial and federal levels.
2. Data, reports, or studies highlighting the availability, distribution, and capacity of mental health professionals in Pakistan.
3. Publications or campaigns regarding public awareness about mental health, establishing collaborations between the mental health sector and other sectors in Pakistan.
4. Research studies, reports, or documents assessing the availability and utilization of data research activities in the field of mental health.

Exclusion Criteria:

1. Reports, studies, or documents not specific to Pakistan or not relevant to the mental health system of Pakistan, studies focusing on mental health systems in other countries and literature not available in English.

To supplement the gaps in the evidence, we conducted an informal scoping of existing services through a survey. We created a list of 117 mental health facilities in Pakistan using an internal network of directories and resources. These facilities were then contacted through email and phone calls to complete an online survey. The consultations allowed us to obtain data on publicly available service data such as the number of mental health

institutions, outpatient and community facilities, and the number of mental health professionals.

Out of the 117 facilities approached, we received responses from 45 facilities, comprising 16 public and 29 private facilities in urban and rural settings (See Table 2) across five provinces. We compared the information obtained from these facilities to published data to consolidate estimates [6]. For the other domains of the WHO-AIMS instrument, we extracted relevant information from existing reports on mental health in Pakistan. Data was entered into an Excel sheet for organization and analysis. A descriptive report summarizing the findings was generated, providing insights into Pakistan's mental health landscape.

Ethical review was not deemed necessary for this desk research given the nature of publicly accessible secondary data extraction on service access and the lack of primary data collection from human subjects.

## Results

### Domain 1: Policy and legislation

Mental Health Policy and Legislation in Pakistan has developed gradually. From the time of its independence until 2001 [18], Pakistan did not have an indigenously developed mental health act. This greatly constrains any legislative frameworks, protections, and legalities for those with mental illness. The Lunacy Act of 1912, a law from colonial era, was based on western ways of dealing with people with mental illness. The act was limited in its understanding of the causes of mental illness and was vastly outdated in legislating a framework to treat those with mental illness in Pakistan. However, it was a significant guiding legislation for dealing with mental health in Pakistan until its repeal in 2001 [19]. In 2001, the Mental Health Ordinance (MHO) replaced the Lunacy Act and was a significant step in updating legislation in Pakistan. The act sets out procedures for voluntary and involuntary care and the lengths of hospital admission in different situations.

The act, however, was drafted by a few psychiatrists without consultations with allied mental health professionals and people with lived experience of mental health. The act sets out procedures for voluntary and involuntary care and the lengths of admission in different situations. It also provided limited information on managing suicide, maintaining confidentiality, and obtaining informed consent [20].

The 18th amendment to the constitution was made in 2010, which decentralized the management of healthcare to its four provincial governments [21]. Following the 18th Amendment, Sindh was the first province to pass its own Mental Health Act in 2013 [22]. The act was largely based on the MHO of 2001 and was slightly modified to the provincial context. A Sindh Mental Health Authority was also set up in 2014 as a requirement of the act. Punjab, followed by Khyber Pakhtunkhwa (KP) and Baluchistan, also established their respective mental health acts in 2014, 2019, and 2019 to regulate the delivery and protection of people with psychosocial disabilities under their remit [23]. The acts all parallel the Sindh Mental Health Act in their language, focus, and intent. Both Punjab and KP stipulated the establishment of provincial mental health authorities similar to the Sindh Mental Health Authority [24]. These authorities aim to oversee the effective implementation of the Acts by advising the federal government on public policy, creating standards for care and treatment, and recommending actions for improving services for child and adolescent care, geriatric services, forensic psychiatry, and intellectual disabilities.

In addition, Sect. 325 of the penal code of Pakistan criminalized suicide and attempted suicide by one year in prison until 2022 [25]. This law was a remnant of the British colonial era and was instituted as part of the penal code in 1860. This law formed the legal basis for criminalizing individuals with mental illness, deprived them of the needed support and care, and added to the stigma and discrimination [26]. After a series of collaborations between government and nongovernmental organizations, a bill to repeal Sect. 325 was passed through the Senate of Pakistan as well as the National Assembly in 2022 and was signed by the President into law in December 2022 [27].

In 2020, the Rights of Persons with Disabilities Act was enacted to offer legal protection to individuals with disabilities residing in the Islamabad Capital Territory [28]. This act extended coverage to individuals with long-term physical or mental conditions that limit a person's movements, senses, or activities and shall include physical, mental, intellectual, and developmental disorders or sensory impairments [29].

In terms of the licensing of mental health professionals in Pakistan, the Pakistan Medical and Dental Council (PMDC) regulates licensing for psychiatrists, while the Allied Healthcare Professionals Council monitors and regulates licensing for psychologists, mental health counsellors, and community mental health workers. The Allied Health Professionals Bill was passed in 2022 to create councils to regulate mental health professionals [30]. Initiating a centralized council will further improve public trust and oversight for psychologists. However, as of June 2023, the council is not yet functional.

As mentioned above, mental health acts are established regulatory frameworks designed to uphold quality and ethical standards within both governmental and private non-governmental organizations (NGOs) involved in mental health services. These acts set guidelines for care delivery, protection of individuals' rights, and ethical practices. However, challenges such as weak healthcare

infrastructure, insufficiently trained mental health professionals, and pervasive societal stigmas hinder the effective implementation of these regulations. As a result, despite their existence, the acts are not implemented and their intended impact in maintaining quality and ethics within mental health organizations is often compromised, leaving gaps in care delivery and protection of individuals' rights.

The process of formulating the current Mental Health Bill in Pakistan has faced criticism for its lack of thoroughness and inclusivity. One significant shortcoming is the limited representation in the drafting process, primarily comprising only a few psychiatrists. This exclusion of key stakeholders such as psychologists and individuals with lived experiences of mental health issues has led to certain issues with the bill. By not involving psychologists, the bill lacks comprehensive perspectives on addressing various mental health needs. Additionally, the absence of individuals with lived experiences means that the bill does not adequately reflect the diverse challenges and requirements of those directly impacted by mental health issues.

## Domain 2: Mental health services

### *Organization of mental health services*

Pakistan's Ministry of National Health Services, Regulations and Coordination (NHSRC), established in 2012, is responsible for the national-level provision of medical services, health policy formulation, and enforcement [31]. While there is a National Mental Health Taskforce, no federal-level mental health department or mental health office governs provincial laws or policies. Moreover, there has been no rigorous survey of how mental health services have been organized in catchment areas within Pakistan since the last WHO-AIMS report in 2009. However, based on a country profile developed in 2015, it was reported that both public and private sector institutions provide mental health services in Pakistan [32].

The government manages public mental health services through the NHSRC, including government-run hospitals and clinics, inpatient and outpatient psychiatric care, and community-based mental health programs [31]. However, the availability and quality of these services can vary widely depending on the region and population served. The private sector includes psychiatric clinics and hospitals run by individual practitioners. There are only approximately 3,729 outpatient facilities and 1.926 Community-Based psychiatric inpatient beds for every 100,000 Pakistanis. Of these, 74% of patients being treated are women. Only 1% of these are available for children and adolescents. Forensic services are usually linked to mental hospitals, with a few specific forensic units hosted in academic institutions [12].

**Table 1** Overview of mental healthcare facilities in Pakistan [6]

| | |
|---|---|
| Mental health or psychiatric hospitals | 11 |
| Mental health outpatient facilities in hospitals | 3,729 |
| Community-Based mental health outpatient facilities | 624 |
| General hospital mental health inpatient units | 800 |
| Community-Based mental health facilities | 1,202 (0.56 per 100,000) |
| Community-Based residential care facilities | 578 |
| Child and adolescent mental health outpatient facilities | 2 |
| Child and adolescent mental health inpatient facilities | 3 |

**Table 2** List of in-person and telephonic services for mental health across provinces contacted for the scoping desk research

| | Public | Private | Total |
|---|---|---|---|
| Punjab | 7 | 8 | 15 |
| Sindh | 2 | 11 | 13 |
| Khyber Pakhtunkhwa | 5 | 8 | 13 |
| Baluchistan* | 1 | 0 | 1 |
| Gilgit Baltistan** | 1 | 2 | 3 |
| Total | 16 | 29 | 45 |

*Baluchistan's sole mental health provider is the Institute of Psychiatry, with catchment areas in 6 districts

**In Gilgit Baltistan, the Taskeen mental health helpline was launched on June 15, 2023, offering free, confidential counselling in local languages

### *Mental health facilities*

The WHO's Mental Health Atlas 2020 reported that there were only 11 large-scale psychiatric or mental hospitals, 578 community residential care facilities, and 800 psychiatric units in general hospitals. The number of mental health beds in the population was 2.1/100,000. Out of the 3,729 outpatient mental health facilities and 624 Community-Based psychiatric inpatient facilities, only 1% are for children and adolescents. Mental health outpatient services are usually incorporated within tertiary care hospitals [6].

In the last few years, the number of beds in psychiatric hospitals has decreased, and more emphasis is now placed on small units in general hospitals, community-based units, and general health facilities. In addition to beds in mental health facilities, there are 0.02 beds for people with mental disorders in forensic inpatient units and 1,620 in other residential facilities, such as homes for people with mental retardation (learning disability), detoxification inpatient facilities, and homes for the destitute.

The data are gathered through online consultation (see Tables 1 and 2) with staff working in psychiatric facilities (the head of the Pakistan Psychiatric Society, government officials, psychiatrists, psychologists, administrative staff, etc.).

#### *Mental health service use*

The type, quantity, and quality of mental health services and interventions offered to individuals vary significantly between private and public facilities. Public psychiatric facilities offer a range of services in addition to routine pharmacological and psychiatric management. Additional services include individual and family psychosocial interventions and vocational and rehabilitation units, with each patient being seen for an average duration of 10–30 min. In private psychiatric facilities and non-profit organizations, patients are seen for an average of 10–60 min and have access to similar services alongside other psychological services, such as art therapy, referrals to other doctors for physical health concerns, tele-counselling, and specialist treatments [33]. Community-Based mental health facilities treat an average of 343.34 users per 100,000 persons in the general population (the average number of contacts per user is 9.31), with most service users reportedly accessing private services [34]. The average number of contacts per user is 9.31. 46% of outpatient facilities provide follow-up care in the community, while 1% have mental health mobile teams. However, only an estimated 1–20% of users have received a mental health intervention or more psychosocial interventions in the past year [12].

While the need for substance use interventions has increased over the past 10 years, out of 67 addiction treatment and rehabilitation *centres*, there were only four that provided free treatment, boarding, and rehabilitation for 3.4 million people affected by substance abuse in 2019 [35]. Moreover, the Drug Regulatory Authority of Pakistan (DRAP) is in charge of regulating and allocating psychotropic drugs in Pakistan [36]. However, aside from the prescribing habits of psychotropics by pharmacies in Karachi and the cost of second-generation antipsychotics (mean annual cost $79) [37], little is known about the national availability and usage of psychotropic drugs within Pakistan.

### Domain 3: Mental health in primary healthcare

The National Health Vision 2016–2025 established by the NHSRC launched Universal Health Coverage in Pakistan [38], which recognizes the need for Universal Health Care (UHC) to provide holistic care to all and improve health outcomes. As part of its efforts, the NHSRC began implementing various aspects of its UHC programs [39]. A few initiatives were launched, such as the Essential Package of Health Services, the Sehat Sahulat card, and related insurance schemes [40].

The Essential Package of Health Services (EPHS) screens for common mental illnesses at the primary care level but does not provide information on training or methodologies to do so [41]. The EPHS was designed to reduce the disease burden while considering Pakistan's budget impact, efficiency, feasibility, fairness, and socioeconomic context. The program offers services in Reproductive Health and maternal and child Health, Infectious Diseases, Non-Communicable Diseases (NCDs), and health services clusters. The package includes coverage for the management of mental health conditions under EPHS but does not quantify the amounts and institutions where this coverage will be addressed.

While the focus on the integration of mental health into UHC has steadily gained support, there currently exists no clear pathways for integrating mental health into UHC. Similarly, for existing UHC programs, no separate budgetary allocations have been made for mental health services. Thus, the focus of UHC remained on physical aspects of health, and the program does not incorporate mental health components directly. However, with the large body of work being done on UHC and mental health by international organizations, Pakistan is well placed to benefit from the programmatic, technical, and operational progress that has been made in mental health integration in UHC globally. The return on investments of these interventions has also resulted in reduced costs of care and benefits in both health and productivity. As identified in the Return on Individual report [42], the return for every dollar invested in mental health yields a return of $5. This high yield of return is based on the overall increases in productivity and well-being that are experienced as a result of access to mental health services.

In addition to the aforementioned efforts, different models for integrating mental health in primary care have been developed and piloted by the private sector:

a.) Integrating Mental Health Through Primary Care and Community Ties (IMPACT) [43], is a GCC-funded program implemented by IRD with primary care network partners Zubaida Machiyara Trust (ZMT), Indus Hospital and Health Network (IHHN) and the SINA Health, Education and Welfare Trust [44–47]. The program scaled up primary care integration and mental health delivery for COVID-19, tuberculosis, HIV, diabetes, and hypertension across 20 clinics over 2 provinces (Sindh and Punjab).

b.) Training of GPs (GIHD) [48]: It is a six-month professional training program for general practitioners in Pakistan on psychosocial interventions to promote human well-being.

c.) Digital model of mental health integration [49]: A digital mental health solution that provides telephonic mental health services to individuals in need.

Other efforts to integrate mental health care into primary care were reemphasized with the emergence of the COVID-19 pandemic. To address the growing mental health needs of the population amidst social isolation, a Mental Health Task Force was formed by the government

in 2020 to strategize and plan interventions to meet the increased mental health demands. Other efforts, such as having a separate budget for mental health, forming a mental health working group, and developing a national mental health helpline, are underway.

#### Domain 4: human resources

In terms of human resources, Pakistan's mental health sector comprises various professionals, including psychiatrists, clinical psychologists, social workers, mental health nurses, and other mental health workers, such as occupational therapists [6]. The consultations conducted with mental health facilities yielded information on the available human resources in Pakistan as of 2023. These findings are compared with the data extracted from WHO-Atlas 2020, as shown in Table 3.

Based on the current findings from consultations and the literature, approximately 51% of psychiatrists work in private practice settings and are concentrated in urban areas, while 45% work in public practice, and the remaining 4% practice in both settings [32]. Most of them work in tertiary-level provincial hospitals. District-level posts in public hospitals, on the other hand, are vacant. Furthermore, due to a lack of career opportunities, household burden, and lack of further education, only 72% of trained psychologists are practicing in Pakistan. Within nonspecialized healthcare cadres, although social workers work in community services, only 0.005 per 100,000 of their population have been trained in mental health [32].

In terms of the training and education of mental health professionals, fifteen mental health institutions, including the National Institute of Psychology (NIP) and the Pakistan Institute of Medical Sciences (PIMS), provide training and research in the field of mental health. The Pakistan Psychiatric Society (PPS) is a registered private organization that also provides guidelines for best clinical practice and training in biopsychosocial models of care. For better opportunities, many mental health professionals emigrate from Pakistan. A study reported that 520 Pakistani psychiatrists were working abroad.

**Table 3** Mental Health workforce (rate per 100,000 of the population) consultation vs. WHO Mental Health ATLAS (2020) [6]

| | Total number (gov and non-gov) | No. per 100,000 population | Mental Health ATLAS (2020) |
|---|---|---|---|
| Psychiatrists | 564 | 0.24 | 300 |
| Medical doctors (at psychiatric facilities) | 32 | 0.013 | - |
| Mental Health Nurses | 200 | 0.086 | 200 |
| Clinical Psychologists | 3000 | 1.296 | 100 |
| Social Workers | 600 | 0.259 | 600 |
| Occupational therapist | 3 | 0.0012 | 0 |
| Other mental health workers (paraprofessional psychosocial counsellors) | 30 | 0.012 | - |
| Total mental health professionals | 4429 | 1.91 | 1200 |

*Total population:231,402,117, 564/231,402,117*100,000 (total number of psychiatrists divided by total population into 100000)

#### *User/consumer or family associations*

As per a previous WHO-AIMS (2009) report, 8 consumers and 6 family association members were quoted who advise governmental bodies on the development or implementation of mental health policies, plans, or legal frameworks [12]. However, none of these consumer or family groups are registered associations. Efforts are being made by persons with lived experience of mental illness (PWLE)-led NGOs (such as the Taskeen Health Initiative [49]) and research organizations in the country to create safe and equitable platforms to promote service user involvement in the development of mental health policy and intervention. Lived Experience Advisory Panels, user-led Theatre Groups, and Community Action Groups are a few examples of such platforms [50, 51]. Since the last report, there has been a significant increase in the number of government-run and private NGOs working toward the provision of mental health care within their communities.

#### Domain 5: Public education and links with other sectors

In Pakistan, there is no centralized coordinating body to oversee public education and awareness campaigns on mental health and mental disorders [12]. However, government agencies, NGOs, and professional and international organizations such as the British Asian Trust, the Taskeen Health Initiative, Interactive Research and Development (IRD), Sehat Kahani, and Aga Khan University (AKU) have all promoted public education and awareness campaigns in the last five years [52]. These campaigns have targeted vulnerable groups such as children and adolescents, women, trauma survivors, and other minority groups [53]. In addition, there have been public education and awareness campaigns targeting professional groups, including teachers and healthcare providers. A few of these initiatives were as follows:

1. The Thinking Healthy Program by the Human Research and Development Foundation (HDRF) that aimed at improving the overall health of both the mother, her child, and those around her was launched. Similarly, the WHO Parents Skills Training (PST) program for children with developmental disorders and delays was also delivered by family volunteers in rural Pakistan [56].
2. The Pursukoon Zindagi program, a community-based mental health model developed by Interactive

Research and Development (IRD) and supported by Sehat Kahani, British Asian Trust, Savaira and Taskeen to provide lay mental health services and raise awareness of mental health in the community through lay counsellors, trained health care professionals, social media, TV and radio [54].

3. A mental health COVID-19 response was launched for those in need of mental health support [49]. It was delivered from April 2020 until April 2022 and included Mental Health Awareness Campaigns via social and mass media, telephonic and online mental health services including support groups and 1–1 counselling, online support to frontline workers, and COVID-19 child and adolescent mental health response through remote therapies.
4. The first Mental Health Coalition in Pakistan emerged from COVID-19 and founded by Taskeen, Savaira, Aga Khan University, British Asian Trust, IRD Pakistan, Saaya Health and Sehat Kahani. It brings together organizations and experts to collaboratively develop mental health strategic plans, national advocacy, quality standards and capacity building for mental health services for Pakistanis affected by mental health issues [52].
5. A multilayered and digitalized Mental Health and Psychosocial Support (MHPSS) model was also launched by the Ministry of Planning, Development & Special Initiatives that aims to builds the capacity of mental health professionals and developed intersectoral collaboration and reduce the mental health treatment gap [55].
6. A five-year President's initiative launched by the Government of Pakistan to promote and improve mental health in schools, with an emphasis on technology to improve access to mental health [57].

The aforementioned initiatives have demonstrated a collective commitment to addressing the challenges faced by individuals with mental illness. Despite the absence of a centralized coordinating body, stakeholders from various sectors have collaborated to disseminate information, provide support, and advocate for improved mental health services. These efforts signify a positive step forward in destigmatizing mental illness, increasing access to care, and fostering a more supportive environment for those affected by mental health issues in Pakistan.

#### Domain 6: Monitoring and research

For monitoring and evaluation, public health facilities that offer mental health services are required to send quarterly reports to the Directorate of Health (and subsequently to the provincial Department of Health) through their respective departments. These reports include the number of people treated in outpatient and inpatient units, but there is no formal list of indicators published for collection by facilities. Aside from the World Health Organization-funded WHO-AIMS report (2009) and Mental Health Atlas (2020) reports for Pakistan [6, 12], the country does not issue public reports on mental health service provision and usage.

In the realm of research and evidence generation between 2018 and 2023, there were 243 (7.8%) publications focused on mental health out of a total of 3108 healthcare-related papers referenced on PubMed. Among these, indexed publications on mental health accounted for 11 (9.7%) out of 113 indexed publications on health. Mental health studies encompassed various forms such as clinical trials, meta-analyses, RCTs, books and documents, as well as review and systematic reviews (see supplementary material for the list A and B). This indicates that mental health research comprised 7.8% of all health research conducted in Pakistan during this period [58].

## Discussion

This desk research has analysed the mental health landscape of Pakistan based on six domains of the WHO-AIMS framework, namely, policy and legislation, mental health services, integration of those services into primary care, human resources, public awareness and collaboration, and monitoring and research. Our inquiry reveals an up-to-date picture of existing mental health policies, interventions, and services as well as ongoing efforts to improve the mental health landscape in Pakistan. However, there remain several challenges in gaps regarding the domains described above which require urgent attention.

First, the MHO that replaced the Lunacy Act was formulated by a few psychiatrists without national consultations with other psychiatrists, allied mental health professionals, and people with lived experiences of mental illness [59]. In terms of the protection of human rights, the act provides very limited information on managing suicide cases and legally addressing individuals with mental illness who carry out criminal offenses. It also fails to acknowledge the concerns of persons with lived experience (PWLEs) and define clear means of implementation of the act, which has led to its ineffective implementation [20].

An update to the MHO can fill this void by using well-defined terminology, including PWLE in the act's formulation process and through a formal consultation process [60]. Additionally, clear demarcation of roles for regulating authorities for mental health care providers, oversight of health care facilities and care practices, and implementable legal processes will need to be defined. To further protect the human rights of people with mental illness, linkages to acts such as the Rights of Persons with Disabilities Act will need to be established. Without

enacting these laws in full force, mental health regulation will remain inadequate [61].

Similarly, the mental health authorities developed by the provinces are still not fully functional and have not set up their rules of business (set of guidelines for the act to be functional and implemented) as of 2023 [62]. For instance, the Sindh Mental Health Authority has been formulated and remains only partially functional due to the lack of its rules of business. Since it is a legal requirement for mental health authorities to have rules of business to initiate their work, this requirement must be fulfilled. This remains a crucial step toward regulating mental health services in Pakistan and must be prioritized by the respective Ministries of Health.

Regarding the licensing of mental health professionals, there is no centralized body to regulate the licensing of clinical psychologists and other mental healthcare providers. Although an Allied Healthcare Professionals Act (AHCP) bill has been passed, a council has yet to be set up by the Government of Pakistan [30]. A centralized national provider database for psychologists is also significant (in a similar manner to the Pakistan Medical & Dental Council provider database for physicians).

Furthermore, as mentioned above, a repeal of Sect. 325 of the penal code was made in 2022 [63]. However, the majority of the Pakistani population and legal systems are unaware of the repeal. A series of public awareness and education campaigns need to be launched to raise awareness among mental healthcare providers, law enforcement personnel, religious leaders, and the general public, as emphasized by the WHO as well [64].

In addition, there is a significant mental health treatment gap due to the shortage of mental health services and professionals. For a total population of 200+million, there are only 500 psychiatrists available, with only 11 psychiatric hospitals and 100 clinical psychologists (Table 2). This ratio creates a large treatment gap, leaving approximately 90% of people with mental illness untreated. The majority of the people residing in urban areas of Punjab, Sindh, and KPK have access to mental health services, whereas rural communities remain neglected. The lack of funding, absence of a clear direction, and lack of development of cost-effective programs remain some key challenges identified [65]. These are exacerbated by an overall lack of qualified professionals in the field. Cost-effective solutions such as digital health solutions and Community-Based task-shifting models that utilize lay healthcare providers can effectively reduce the burden on the already fragmented mental healthcare system of Pakistan and can improve access to mental health services for those in need [66].

There is a general lack of clear policy standards for integrating mental healthcare into universal healthcare (UHC). Although numerous efforts have been made by the private sector and international organizations to integrate mental health into primary care, the methodologies and timelines to do so remain unclear [67]. While the focus on the integration of mental health into UHC has gained more support, there are no clear pathways for integrating mental health into UHC. Programs to train and evaluate primary care providers on mental health are being evaluated; however, no indigenous results have yet been piloted at scale. Similarly, for existing UHC programs, no separate budgetary allocations have been made for mental health services. To achieve the integration of mental health into UHC, policy shifts that direct increased investment in mental health and the quality provision of services are needed [67]. Without capacity-building measures, no immediate policy actions exist to transition Pakistan to provide mental health services under its UHC umbrella. It must be noted that the cost-effectiveness of providing mental healthcare as part of UHC has been investigated and established and would greatly reduce the overall costs to the exchequer on care.

However, for programs to garner any success, policies, and programs to address stigma reduction in mental health would also be key requirements. Public-private partnership models remain critical to overcoming the abovementioned barriers [68].

The stigma around mental illness is a significant barrier to bridging the mental health treatment gap. A lack of funding for public awareness campaigns, a lack of mental health literacy programs in schools, and a lack of employee wellbeing programs in the workplace further add to the stigma around mental illness [69]. To address this stigma, public awareness interventions tailored to the needs of various ethnic groups can have a greater impact. Having public awareness interventions at the federal level coordinating with different provinces will be highly beneficial. In addition, understanding the current social media trends and analysing the impact of social media strategies can aid in the development of effective public awareness initiatives. It is also significant to incorporate research into public awareness programs to have evidence-based interventions in place, which could also benefit other low-resource countries [70].

#### Strengths and limitations of the desk research and scoping

There are various strengths of this desk research, as it provides a thorough analysis of the mental health system in Pakistan. Our team utilized a combination of desk research, consultations with healthcare professionals and mental health organizations, and legislative review to gather data, ensuring a comprehensive and diverse perspective on the mental health system in Pakistan. Our inquiry conducted gap analyses to identify areas where the mental health system in Pakistan may be lacking or in need of improvement. The use of the WHO-AIMS

framework as a standardized framework allowed for a systematic assessment of the mental health system in Pakistan. The analyses recognized the involvement of persons with lived experiences and human rights for a holistic approach to understanding the challenges and needs of the population.

A few limitations of the scoping were the challenging data collection process, as a self-funded survey we were restricted to accessible literature, consultations, surveys, and organizational websites (private and public). The literature had not been updated for a long time, which was a major barrier. Moreover, consultations were provided in-kind support, and the survey was conducted on a small scale; most of the organizational websites had not been updated. It has been found that the number of mental health professionals appears to be significantly underreported. Hence, investment into a large-scale country profile analysis is required to fully comprehend an updated picture of the mental health system in Pakistan.

While every effort was made to obtain information from around the country, some information could not be gathered for several indicators, such as time spent in Community-Based psychiatric inpatient units per discharge and availability of medicines in mental health outpatient facilities. In addition, some facilities had difficulty providing information in the way specified in the WHO-AIMS questionnaire. For example, they needed help supplying information about bed changes in mental hospitals, involuntary admissions to mental hospitals, physical restraint and seclusion in mental hospitals, and long-stay patients in forensic units. Some public facilities have difficulty providing precise data about data transmission from mental health facilities and government health department reports on mental health services. In some situations, the data needed might have been available at the district or regional level but not aggregated centrally at the national level. Examples include beds/places in community residential facilities, the number of beds/places in other residential facilities, and psychiatry beds in or near the largest city. Additionally, most of the information provided is related to each facility, thereby overlooking the availability of services for specific populations within the facility, such as children, adolescents, or older adults.

In our consultation regarding mental health facilities and workforce, it's important to acknowledge potential underreporting due to various factors. Firstly, the list of approved psychiatrists may not fully capture practicing professionals in both public and private sectors. Additionally, the role of trained lay mental health counsellors, operating under supervision in organizations like ZMT, SINA, and Indus, should be considered as part of the workforce. Furthermore, medical doctors and general practitioners are often involved in psychiatric facilities, adding to the task force, yet they may not always be accounted for. These limitations underscore the need for comprehensive data collection and recognition of diverse mental health care providers. Public and private sectors must collaborate to bridge existing gaps, rather than working in silos.

As significant limitation of the desk research lies in its narrow scope of consultation due to its self-funded nature, it does not have a national range. However, despite this limitation, the inquiry holds immense value as it offers a snap shot of existing challenges and opportunities within Pakistan's mental health ecosystem. By conducting consultations with a subset of organizations, it illuminates key areas for improvement and serves as a foundational step towards understanding the broader complexities of mental health care delivery in the country. This country profile calls for more comprehensive and in-depth exploration of the frameworks and mechanisms shaping mental health ecosystem in Pakistan. These efforts will inform reallocation of resources, evidence-based interventions, policy reforms to address the needs of Pakistan's diverse population. This mental health country profile helped us in understanding the large gap that exists between the public and private institutions and advocates for collaborative efforts towards building a more inclusive and accessible mental health system in Pakistan.

## Conclusion

This desk research provides a roadmap for refining Pakistan's mental healthcare system and informs the prioritization of mental health campaigning efforts. It aims to contribute to ongoing efforts to improve mental healthcare accessibility and quality in Pakistan by analyzing significant insights within six domains, including policy and legislation, expanding access to mental health services, improving existing initiatives for better integration of mental health into primary care, improving public awareness and sector collaboration, addressing human resource challenges, and strengthening monitoring and research initiatives.

**Abbreviations**

| | |
|---|---|
| WHO-AIMs | World Health Organization – Assessment Instrument for mental health system |
| IRD | Interactive Research and Development |
| LMICs | Low- and middle-income countries |
| UHC | Universal health coverage |
| NHSRC | National Health Services, Regulations and Coordination Ministry (NHSRC) |
| BHU | Basic Health Units |
| THQs | Tehsil Headquarters Hospitals |
| DHQs | District headquarters hospitals |
| MHO | Mental Health Ordinance |
| PMDC | Pakistan's medical and dental council |
| DRAP | Drug Regulatory Authority of Pakistan |
| EPSH | Essential packages of health services |
| NCD | Noncommunicable diseases |

## Supplementary Information

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Supplementary Material 1

Supplementary Material 2

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**Author contributions**
KD and MZ identified, extracted and synthesized the data for domains one, three, and five while OQ and MB conducted the same for the data on domains two, four, and six. KD wrote the introduction and refined the manuscript. All authors contributed to the discussion and subsequent write-up. TS supervised and reviewed the manuscript. All the authors have read and approved the final manuscript.

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The manuscript has used publicly available data.

## Declarations

**Ethical approval and consent to participate**
We conducted desk research and scoping on existing policies and legislation and consultations with health facilities on the number of mental health facilities and health professionals. It does not use any human data; therefore, ethical approval was not needed

**Consent for publication**
Not applicable.

**Competing interests**
The authors declare no competing interests.

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**References**

1. World Bank. Pakistan | Data [Internet]. 2022 [cited 2023 Sep 24]. https://data.worldbank.org/indicator/SP.POP.0014.TO?locations=PK
2. World Atlas. What Languages Are Spoken In Pakistan? - WorldAtlas [Internet]. [cited 2023 Sep 24]. https://www.worldatlas.com/articles/what-languages-are-spoken-in-pakistan.html
3. World Atlas. Religion in Pakistan - WorldAtlas [Internet]. [cited 2023 Sep 24]. https://www.worldatlas.com/articles/religious-beliefs-and-freedoms-in-pakistan.html
4. Pakistan Bureau of Statistics and Stakeholders. The Digital Census [Internet]. 2023 [cited 2023 Sep 24]. https://www.pbs.gov.pk/sites/default/files/population/2023/Press%20Release.pdf
5. The World Bank. Literacy rate, youth total (% of people ages 15–24) - Pakistan | Data [Internet]. [cited 2023 Sep 24]. https://data.worldbank.org/indicator/SE.ADT.1524.LT.ZS?locations=PK
6. World Health Organization. Mental Health Atlas 2020 Country Profile: Pakistan. [cited 2023 Sep 24]; https://www.who.int/publications/m/item/mental-health-atlas-pak-2020-country-profile
7. Global Health Observatory [Internet]. [cited 2023 Sep 24]. https://www.who.int/data/gho
8. Khan H, Kalia S, Itrat A, Khan A, Kamal M, Khan MA et al. Prevalence and demographics of anxiety disorders: a snapshot from a community health center in Pakistan. Ann Gen Psychiatry [Internet]. 2007 Nov 13 [cited 2023 Sep 24];6:30. https://doi.org/10.1186/1744-859X-6-30
9. Mirza Z, Rahman A. Mental health care in Pakistan boosted by the highest office. Lancet [Internet]. 2019 Dec 21 [cited 2023 Sep 24];394(10216):2239–40. https://pubmed.ncbi.nlm.nih.gov/31868627/
10. Alvi MH, Ashraf T, Kiran T, Iqbal N, Gumber A, Patel A et al. Economic burden of mental illness in Pakistan: an estimation for the year 2020 from existing evidence. BJPsych Int [Internet]. 2023 Aug 12 [cited 2023 Sep 24];20(3):54–6. http://www.ncbi.nlm.nih.gov/pubmed/37531228
11. World Health Organization Assessment Instrument. for Mental Health Systems WHO-AIMS.
12. Pakistan IN. WHO-AIMS Report on Mental Health System.
13. Najam S, Chachar AS, Mian A. The mhgap; will it bridge the mental health treatment gap in Pakistan? Pakistan Journal of Neurological Sciences (PJNS) [Internet]. 2019 Jun 1 [cited 2023 Sep 24];14(2). https://ecommons.aku.edu/pjns/vol14/iss2/6
14. WHO EMRO. | Health service delivery | Programmes | Pakistan [Internet]. [cited 2023 Sep 24]. https://www.emro.who.int/pak/programmes/service-delivery.html
15. Shaikh BT, Ali N. Universal health coverage in Pakistan: is the health system geared up to take on the challenge? Global Health [Internet]. 2023 Dec 1 [cited 2023 Sep 24];19(1):1–6. https://globalizationandhealth.biomedcentral.com/articles/https://doi.org/10.1186/s12992-023-00904-1
16. Khan SU, Hussain I. Inequalities in health and health-related indicators: a spatial geographic analysis of Pakistan. BMC Public Health [Internet]. 2020 Dec 1 [cited 2023 Sep 24];20(1):1–9. https://bmcpublichealth.biomedcentral.com/articles/https://doi.org/10.1186/s12889-020-09870-4
17. Mutiso VN, Musyimi CW, Gitonga I, Tele A, Pervez R, Rebello TJ et al. Using the WHO-AIMS to inform the development of mental health systems: the case study of Makueni County, Kenya. BMC Health Serv Res [Internet]. 2020 Jan 20 [cited 2023 Sep 24];20(1). http://pmc/articles/PMC6971996/
18. The Pakistan Code Ministry of Law and Justice. 2001. [cited 2023 Sep 24]. Mental Health Ordinance, 2001. https://www.pakistancode.gov.pk/english/UY2FqaJw1-apaUY2Fqa-cp%2BUY2Fu-sg-jjjjjjjjjjjj
19. Lunacy Act, 1890: 53. Vict. Ch. 5. | Wellcome Collection [Internet]. [cited 2023 Sep 24]. https://wellcomecollection.org/works/j87mjx7b/items
20. Gilani AI, Gilani UI, Kasi PM, Khan MM. Psychiatric Health Laws in Pakistan: From Lunacy to Mental Health. PLoS Med [Internet]. 2005 Nov [cited 2023 Sep 24];2(11):1105–9. https://doi.org/10.1371/journal.pmed.0020317
21. Government of Pakistan. 2010. [cited 2023 Sep 24]. The Gazette of Pakistan. https://na.gov.pk/uploads/documents/1302138356_934.pdf
22. Provincial Assembly of Sindh [Internet]. [cited 2023 Sep 24]. http://www.pas.gov.pk/index.php/acts/details/en/31/237
23. PRovincial Assembly of the Punjab.
24. Implementation of the Mental Health Act. are we ready? - PubMed [Internet]. [cited 2023 Sep 24]. https://pubmed.ncbi.nlm.nih.gov/26627519/
25. Moosa Khan M, Reza H. Suicide and Parasuicide in Pakistan: Time for A Change?.
26. Decriminalization will lead to suicide prevention. It's high time Pakistan repealed Sect. 325, a British Raj remnant - Pakistan - DAWN.COM [Internet]. [cited 2023 Sep 24]. https://www.dawn.com/news/1644258
27. Kline S, Sabri T. The decriminalization of suicide: a global imperative. Lancet Psychiatry [Internet]. 2023 Apr 1 [cited 2023 Sep 24];10(4):240–2. http://www.thelancet.com/article/S2215036623000573/fulltext
28. Pakistan. [AS PASSED BY THE NATIONAL ASSEMBLY]. A Bill to promote, protect, and effectively ensure the rights and inclusion of persons with disabilities in the communities in line with the Islamic Injunctions and provisions of the Constitution of the Islamic Republic of Pakistan to advance efforts for recognition of their respect and dignity in the society; Constitution means the Constitution of the Islamic Republic of Council means the Council on Rights of Persons with Disabilities constituted.
29. Ministry of Human Rights [Internet]. [cited 2023 Sep 24]. https://mohr.gov.pk/NewsDetail/NDA2NDc4OWUtYjY2NC00M2MzLTg0MTktZjY1YzZiNzc0NWQw
30. The Allied Health Professional Bill [Internet]. [cited 2023 Sep 24]. https://senate.gov.pk/uploads/documents/1645072462_901.pdf
31. MInistry of National Health Services Regulations and Coordination [Internet]. [cited 2023 Sep 24]. https://www.nhsrc.gov.pk/
32. Bhugra D, Tse S, Ng RMK, Takei N. Routledge handbook of psychiatry in Asia. Routledge Handb Psychiatry Asia. 2015;1–324.
33. Bird VJ, Davis S, Jawed A, Qureshi O, Ramachandran P, Shahab A, et al. Implementing psychosocial interventions within low and middle-income

countries to improve community-based care for people with psychosis—A situation analysis. Front Psychiatry. 2022;13:807259.
34. Karwan-e Hayat Annual Report [Internet]. 2022 [cited 2023 Sep 24]. https://www.studocu.com/row/document/ziauddin-university/hospital-report/ke-h-annual-report-2022-jhgggt/38722703
35. Anti. Narcotics Force Pakistan [Internet]. [cited 2023 Sep 24]. http://anf.gov.pk/afi.php
36. Regulatory. Updates – Drug Regulatory Authority of Pakistan [Internet]. [cited 2023 Sep 24]. https://www.dra.gov.pk/category/news_updates/regulatory_updates/
37. Malik M, Ghani MU, Mazhar W, Munir N. Changing trends in anti-psychotic prescription pattern in Pakistan. Pak J Med Sci [Internet]. 2019 May 1 [cited 2023 Sep 24];35(3):653. https://www.pjms.org.pk/index.php/pjms/article/view/136/151
38. Government of Pakistan. National Health Vision 2016–2025 [Internet]. 2016 [cited 2023 Sep 24]. https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/pakistan/national_health_vision_2016-25_30-08-2016.pdf
39. No Health without Mental Health: the Urgent Need for Mental Health Integration in Universal Health Coverage (UHC) in Pakistan. 2020 [cited 2023 Sep 24]; https://gospeakyourmind.org/return-individual-report
40. ADvocating for Better Mental Health Policies in Pakistan [Internet]. [cited 2023 Sep 24]. https://unitedgmh.org/app/uploads/2023/05/United-Case-Study-Taskeen.pdf
41. The Essential Package of Health Services and Health Benefit Plans in Pakistan. [cited 2023 Sep 24]; https://www.hfgproject.org/ephs-epcmd-country-snapshots-series/
42. Prioritizing Mental Health. A Welcome Development in the UN High-Level Meeting on TB - United for Global Mental Health [Internet]. [cited 2023 Sep 24]. https://unitedgmh.org/knowledge-hub/prioritizing-mental-health-a-welcome-development-in-the-unhigh-level-meeting-on-tb/
43. Addressing mental health through primary care and community engagement in the WHO South–East Asia Region [Internet]. [cited 2023 Sep 24]. https://iris.who.int/handle/10665/361248
44. Health SINA. Education & Welfare Trust [Internet]. [cited 2023 Sep 24]. https://sina.pk/
45. Indus. Hospital & Health Network [Internet]. [cited 2023 Sep 24]. https://indushospital.org.pk/
46. IRD [Internet]. [cited 2023 Sep 24]. Available from: https://ird.global/.
47. ZMT Primary Healthcare Network [Internet]. [cited 2023 Sep 24]. https://zmt-clinics.org/
48. Certificate. Training Programs – GIHD [Internet]. [cited 2023 Sep 24]. https://gihd.stmu.edu.pk/research-led-training/
49. Taskeen Health Initiative [Internet]. [cited 2023 Sep 24]. https://taskeen.org/about/
50. Slade M, Bird V, Chandler R, Fox J, Larsen J, Tew J et al. The contribution of advisory committees and public involvement to large studies: Case study. BMC Health Serv Res [Internet]. 2010 Dec 2 [cited 2023 Sep 24];10(1):1–9. https://bmchealthservres.biomedcentral.com/articles/https://doi.org/10.1186/1472-6963-10-323
51. LEAP – PIECEs [Internet]. [cited 2023 Sep 24]. https://piecesresearch.com/leap
52. Mental H. Lifting Shadows [Internet]. [cited 2023 Sep 24]. https://www.britishasiantrust.org/media/2961/mental-health-lifting-shadows-2018-2021.pdf
53. Waqas A, Malik S, Fida A, Abbas N, Mian N, Miryala S et al. Interventions to Reduce Stigma Related to Mental Illnesses in Educational Institutes: a Systematic Review. [cited 2023 Sep 24]; https://doi.org/10.1007/s11126-020-09751-4
54. Pursukoon Zindagi-'Peaceful Life' TYPE OF ORG OFFERING Free-of-cost Services. [cited 2023 Sep 25]; http://ird.global/
55. Ministry of, Planning. Development & Special Initiatives [Internet]. [cited 2023 Sep 24]. https://www.pc.gov.pk/web/blog/getblog/14
56. Sikander S, Ahmad I, Atif N, Zaidi A, Vanobberghen F, Weiss HA et al. Delivering the Thinking Healthy Programme for perinatal depression through volunteer peers: a cluster randomized controlled trial in Pakistan. Lancet Psychiatry [Internet]. 2019 Feb 1 [cited 2023 Sep 24];6(2):128–39. http://www.thelancet.com/article/S221503661830467X/fulltext
57. Mubbashar MH. Development of mental health services in Pakistan. International Psychiatry [Internet]. 2003 Jul [cited 2023 Sep 24];1(1):11. https://doi.org/10.1192/S1749367600007633
58. (US) O of the SG, (US) C for MHS, and (US) NI of MH. Chapter 2 Culture Counts: The Influence of Culture and Society on Mental Health. 2001 [cited 2023 Sep 24]; https://www.ncbi.nlm.nih.gov/books/NBK44249/
59. Tareen A, Tareen KI. Mental health law in Pakistan. BJPsych Int [Internet]. 2016 Aug [cited 2023 Sep 25];13(3):67. https://doi.org/10.1192/S2056474000001276
60. Shah SM, Sun T, Xu W, Jiang W, Yuan Y. The mental health of China and Pakistan, mental health laws and COVID-19 mental health policies: a comparative review. Gen Psychiatr [Internet]. 2022 Nov 17 [cited 2023 Sep 25];35(5):100885. https://doi.org/10.1136/gpsych-2022-100885
61. Löve L, Traustadóttir R, Quinn G, Rice J. The Inclusion of the Lived Experience of Disability in Policymaking. Laws. 2017, Vol 6, Page 33 [Internet]. 2017 Dec 20 [cited 2023 Sep 25];6(4):33. https://www.mdpi.com/2075-471X/6/4/33/htm
62. Sarwar N, EC EMergency Medicine and Critical Care EC Emergency Medicine, and Critical Care Editorial Cronicon EC Emergency Medicine and Critical Care EC Emergency Medicine and Critical Care Editorial. 2022 [cited 2023 Sep 25]; http://kpcode.kp.gov.pk/uploads/2017_17_THE_KHYBER_PAKHTUNKHWA_MENTAL_HEALTH_ACT_2017.pdf
63. A win for mental. health - Newspaper - DAWN.COM [Internet]. [cited 2023 Sep 25]. https://www.dawn.com/news/1728642
64. WHO launches new resources on prevention. and decriminalization of suicide [Internet]. [cited 2023 Sep 25]. https://www.who.int/news/item/12-09-2023-who-launches-new-resources-on-prevention-and-decriminalization-of-suicide
65. Qureshi O, Ali M, Sabri T. Country Profile Analysis for mental health campaigning and advocacy.
66. Dorsey S, Gray CL, Wasonga AI, Amanya C, Weiner BJ, Belden CM et al. Advancing successful implementation of task-shifted mental health care in low-resource settings (BASIC): Protocol for a stepped wedge cluster randomized trial. BMC Psychiatry [Internet]. 2020 Jan 8 [cited 2023 Sep 25];20(1):1–14. https://bmcpsychiatry.biomedcentral.com/articles/https://doi.org/10.1186/s12888-019-2364-4
67. Shaikh BT, Ali N. Universal health coverage in Pakistan: is the health system geared up to take on the challenge? Global Health [Internet]. 2023 Dec 1 [cited 2023 Sep 25];19(1):1–6. https://globalizationandhealth.biomedcentral.com/articles/https://doi.org/10.1186/s12992-023-00904-1
68. Joudyian N, Doshmangir L, Mahdavi M, Tabrizi JS, Gordeev VS. Public-private partnerships in primary health care: a scoping review. BMC Health Serv Res [Internet]. 2021 Dec 1 [cited 2023 Sep 25];21(1):1–18. https://bmchealthservres.biomedcentral.com/articles/https://doi.org/10.1186/s12913-020-05979-9
69. Munawar K, Abdul Khaiyom JH, Bokharey IZ, Park MSA, Choudhry FR. A systematic review of mental health literacy in Pakistan. Asia Pac Psychiatry [Internet]. 2020 Dec 1 [cited 2023 Sep 25];12(4). https://pubmed.ncbi.nlm.nih.gov/32803860/
70. Gronholm PC, Bakolis I, Cherian AV, Davies K, Evans-Lacko S, Girma E et al. Toward a multilevel strategy to reduce stigma in global mental health: overview protocol of the Indigo Partnership to develop and test interventions in low- and middle-income countries. Int J Ment Health Syst [Internet]. 2023 Dec 1 [cited 2023 Sep 25];17(1):1–11. https://ijmhs.biomedcentral.com/articles/https://doi.org/10.1186/s13033-022-00564-5

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