School of Public Health

Independent University, Bangladesh

A review on Mental health Gap Action Program (mhGAP) implementation- Challenges and recommendations.

Thesis Submitted By

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ID# 2031370

in consideration of the partial fulfillment of the requirements for the degree of

Master of Public Health (MPH)

Supervised by

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School of Public Health

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Declaration

This is , Dr. Mohammad Kamrul Islam, declare that this Narrative overview is my own unaided work and that I have acknowledged all sources to the best of my knowledge. This systematic review is being submitted in partial fulfillment of the degree of Master of Public Health at the Independent University, Bangladesh. It has not been submitted before for any degree or examination at this or any other university.

Dr.Mohammad Kamrul Islam

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Dr.Mohammad Kamrul Islam

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This is to certify that Dr.Mohammad Kamrul Islam worked on "**A review on Mental health Gap Action Program (mhGAP) implementation- Challenges and recommendations.**" under my supervision. I have gone through the paper. It is up to the mark and to my full satisfaction.

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Abstract

Background:

In low- and middle-income countries (LMICs), significant initiatives underway to improve mental health care access, notably systematic training of non-specialized health practitioners and other care providers to identify and support persons with mental illnesses. We aimed to reveal the barriers in mhGAP training and implementation, as well as potential prevention methods in this paper.

Method:

Standard method used, field work experience triangulated with thematic analysis of qualitative data gathered from paper of mhGAP training and implementation in several countries. All data references in this work are based on published papers.

Results:

The initial article search retrieved 238 records, additional records identified through hand search. 112 duplicates were removed with proper manual scrutiny manually. Then rest of records (131) remains.

Among 131 records 111 were excluded because of not mentioned mhGAP training, guideline or capacity building cautiously which was the study of only one MNS disorder contextual study with proper precaution.

Conclusion:

Limited number of countries addressing the challenges and barrier on to implement mhGAP.

Continued study is required to identify challenges to mhGAP implementation and sustainability of enhanced services should be a research priority.

Key words- mhGAP, Implementation, MNS disorder, LMIC, Implementation, Primary Health Care Settings.

List of Key Definition-

Key words	Key Definition
mhGAP	The (mhGAP) is program developed by WHO intends to increase care for mental, neurological, and drug use diseases in low- and middle-income nations.
PHC	stands for "essential health care" that is delivered using scientifically sound and socially acceptable methods and technology. This ensures universal health care accessible to all individuals and families in a community.
MNS Disorder	MNS disorders is used to comprise the disorder of mental health, neurological, and substance use. MNS disorders includes a wide range of conditions of the brain, from depression to epilepsy to alcohol abuse.
LMIC	According to the World Bank, LMICs are countries whose economies have a GNI per capita of between $1,046 and $4,095 per capita.

List of Abbreviation -

Abbreviation	Elaboration
mhGAP	Mental Health Gap Action Program.
MNS Disorder	Mental, Neurological Substance Abuse Disorder.
PHC	Primary Health Care
WHO	World Health Organization.
LMIC	Low and Middle Income Country.
IASC	Interagency sector Coordination

CHAPTER 1

Introduction

Mental, Neurological and Substance use disorders becoming Global Burden day by day specially in Low and Middle Income countries(LMIC) apparently due to lack of accessibility, Cost, Efficacy because Stigma, culture, socio economic situations etc. [1]. Mental health issues are the leading causes of disability globally, accounting for 37% of all healthy life years lost due to disease. [2]. WHO termed it as "TREATMENT GAP" which is accounted for 13% of the global burden of disease [1,2]. MNS issues frequently co-occur with other chronic health disorders (for example, HIV/AIDS, diabetes, and cardiovascular disease) and, if left untreated, exacerbate the prognosis of these conditions. [3]. People with MNS problems and their families are also confronted with stigma, which reduces their quality of life, hinders social inclusion and employment, and impedes help-seeking. [4,5]. As per WHO statement between 75-90% of people with MNS condition do not receive treatment or remain untreated. To close this Public health concern WHO launched Mental Health GAP Action Program (mhGAP) for LMIC in 2008 [1,2,3].

Several studies indicate that there are hurdles to access and usage of mental health care, particularly in poor and middle-income nations. The mainstream public health key focus strategy and its implications on funding; the sophistication of and resistance to decentralization of mental health services; challenges to implementing mental health care in primary-care settings; and the low number and few types of workers who are trained and supervised in mental health care were reported in a qualitative survey of international mental health experts and leaders to review barriers to mental health service development. [6]. Recognizing the constraints to mental health services In order to meet the requirements of persons with mental illnesses and arrange suitable services, usage is especially critical. [7].

In an response to address the priority World Health Organization (WHO) developed tools, mhGAP intervention guidelines (mhGAP- IG) guidelines and strategies for trainings and implementation for different health care staff [3, 10]. Depression, self-harm/suicide, psychosis, children's mental health disorders, epilepsy, dementia, substance addiction, and others are among the eight priority problems treated by mhGAP-intervention guide. The mhGAP Intervention was developed as a therapeutic tool and is extensively used in the training and capacity building of non-specialist service providers. There is presently no unified repository for mhGAP training programs or attempts. Its primary purpose is to increase capacity. mhGAP tools were used in 90 countries, according to a recent comprehensive review. It is well established that integration of mhGAP into primary health care is one of the best possible way to reduce the substantial treatment gap for MNS disorder, especially in low resource settings [13].

Mental health illness constitutes a huge portion of Treatment gap as a result MNS disorder represent a substantial proportion Global Burden of Disease. Which is much worse in LMIC like Bangladesh and specially in Humanitarian crisis where resources and secondary tertiary health care services lacks. It is vital to critically consider the limits of the gap paradigm and its implications for creating capacity for mental health care in Bangladesh.. WHO and UNHCR jointly revise the mhGAP IG into mhGAP HIG to fulfill their strategy. The mhGAP launched to dovetail

mental health services and psychosocial support services as per IASC pyramid principles to bridge the gap. Economic, demographic, social, cultural etc. so many factors are associated with MNS disorder patient which is aggravated during Humanitarian emergencies as they are oppressed before and even after their displacement. The mhGAP implementation in humanitarian emergencies demands Good partnership along with many other guiding principle eg-Do no harm, Equity of care, Accessibility, service integration, appropriate and systematic Monitoring and Evaluation, Use of right based, community based approach. The priority conditions covered in mhGAP due to Large burden, High Economic Costs, Human rights violation.

The purpose of the overview to search various variables pose significant challenges to mhGAP implementation and sustainability of enhanced services and to identify area for further research and development.

Chapter 2

Methods

Search strategies

The article is narrative reflections Of mhGAP training Implementation where information are collected from existing published literature of LMIC's in various databases. PRISMA guideline followed for this narrative review. We aimed to identify recurrent and cross cutting issues.

Diagram 1-

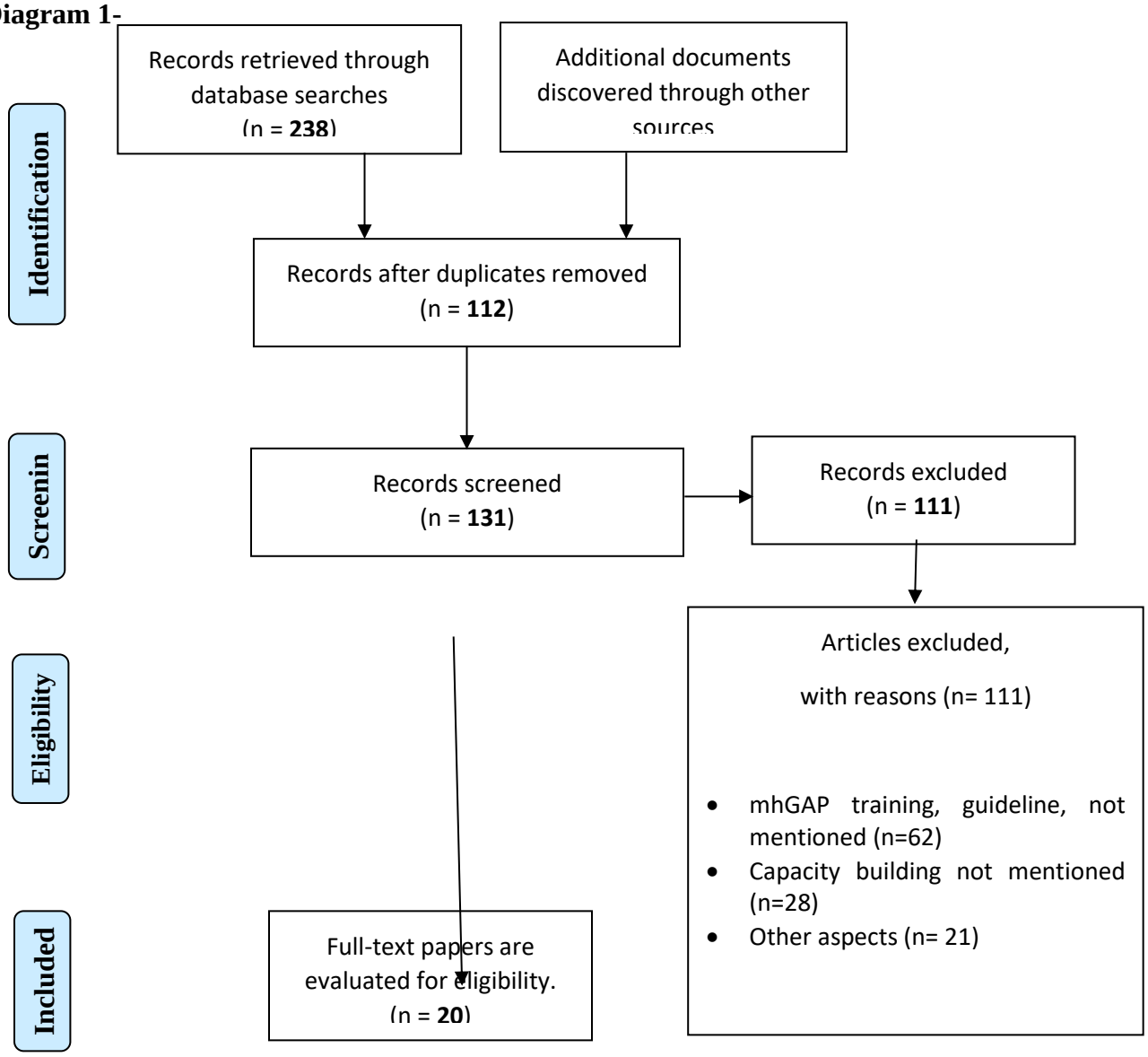

Figure 1: PRISMA flow diagram of study selection

Journal in PubMed/ Medline, Scopus, Google Scholar searched . There was no time limit and mhGAP implementation in other countries even articles published based on Humanitarian emergencies also included. Studies written in another language is excluded from the search. The search word consists of Key Word “mhGAP implementation challenges, MNS disorder in LMIC, mhGAP Integration in Primary Health Care etc.

Study Selection and Data Extraction

An analysis of the literature review carried out. In accordance with prior studies and approaches for performing a Narrative review of literature, we first created a thorough strategy for conducting the review.

The articles were selected and screened following PRISMA flowchart. Following steps carried out to decide the studies- 1) Searching the databases mentioned using same search strategy. 2) Duplicating and merge search results are discarded manually. 3) Remove titles and abstracts irrelevant to study. 5) Shortlisting the articles as per selection criteria mentioned. 6) Final decision on study inclusion make and proceeded for data collection. Extracted information included are Year, location and settings study conducted, The quality of the study selected as per WHO mhGAP guideline and field experience of the Master trainer of mhGAP. Microsoft word used for data extracted data table and thematic analysis for this paper.

Data Analysis

Data is collected form 20 published articles, aggregated in a Excel sheet, then set thematically and triangulated. Later data organized in a Table as per thematic analysis of qualitative data.

Chapter 3

Results-

The initial article search retrieved 238 records, additional records identified through hand search. 112 duplicates were removed with proper manual scrutiny manually. Then rest of records (131) remains.

Among 131 records 111 were excluded because of not mentioned mhGAP training, guideline or capacity building cautiously which was the study of only one MNS disorder contextual study with proper precaution after studying the Abstract.

The flow diagram in Diagram 1 shows literature search steps from where data selected and analyzed thematically. Among the 20 published journal 4 was WHO training manuals and strategic guidelines, 7 is systematic or narrative review mainly focusing the theme of mhGAP implementation barrier and challenges along with way forward in various LMIC. 4 is original research on Barriers of Mental health care utilization, and rest 5 was report and case study focusing Mental Health care services improvement in National and Humanitarian settings. All published paper was between 2007 to 2021.

Table 1- Selected articles Themes, origin, study type and findings

Author(Year)	Type of Paper	Country of Study	Topic	Themes of Publication
WHO(2016)	Training manuals	All country specially LMIC	mhGAP intervention Guide	Guide for training of Doctor, Psychiatric Nurse, Psychologist.
WHO(2007), Wang, Philip S et al.	Mental Health Survey	low- or middle- (Colombia, Lebanon, Mexico, Nigeria, China, South Africa, Ukraine)	Use of mental health services for anxiety, mood, and substance disorders in 17 countries	Finding the unmet needs of Mental Health
Faregh, Neda et al.(2019)	Original reflection and overview	Chad, Ethiopia, Nigeria, Guinea, and Haiti	Taking culture, context, and community into account while implementing and training the mhGAP.	challenges and suggestions from the field.
Whiteford, Harvey et al. (2016)	Reflection	China, India	Global Burden Of Disease Studies	Implications For Mental And Substance Use Disorders.

Saraceno, Benedetto et al. (2007)	Case series and synthesis	17 Country In Afghanistan, Palestine, Sub Saharan etc.	Challenges to improving mental health care in low- and middle-income nations.	Barriers and recommendations for LMIC
Ali, S. H., & Agyapong, V. (2016).	Original Research	South Sudan	Barriers to mental health service utilization in Sudan	perspectives of carers and psychiatrists
Jack-Ide, I. O., & Uys, L. (2013).	Original Research	Niger and Nigeria.	Barriers to using mental health care in Nigeria's Niger Delta area.	Service users perspectives
Patel, Vikram et al. (2011)	Case report and synthesis	Pakistan, Uganda, India.	Increasing the availability of psychiatric treatment	lessons from developing countries.
Patel, Vikram et al. (2016)	Case series	WHO Eastern Mediterranean Region	Addressing the mental, neurological, and substance use disorders burden	key messages from Disease Control Priorities,
Roxanne C et al. (2017)	Review and synthesis	Middle East, Africa, SEARO	Intervention Guide for the WHO Mental Health Gap Action Programme (mhGAP): a comprehensive evaluation of evidence from poor and middle-income countries.	Evidence-based mental health vol.
Meshesha, Hana Shewamoltot, and Veronica Johnson. (2021)	Case report	Ethiopia	A Systematic Review of Ethiopian Culturally Responsive Child and Adolescent Mental Health Care	Lessons from Ethiopia
WHO(2015)	Policy and service guidance	Refugee settings in LMIC Country	Mental Health Services in Humanitarian	Strategy and Plan

			Settings: A Strategy	
Ventevogel, Peter et al.(2015)	Report	Refugee settings in LMIC Country	In humanitarian catastrophes, improving mental health care.	Bulletin of mental health care for humanitarian settings
WHO(2017)	Report	Liberia	Mental health profile in Liberia	Profile of mental health professionals Existence of strategy and plan
Kiima, David, and Rachel Jenkins. (2010)	Policy and strategy	Kenya	Mental health policy in Kenya	integrated approach to scaling up equitable care for poor populations.
Ventevogel, Peter et al. (2012)	Case study	Afghanistan	Improving mental health care and psychosocial support in a vulnerable setting	Case study from Afghanistan.
Acharya, Bibhav et al. (2016)	Original Research	Nepal	The Mental Health Education Gap among Primary Care Providers in Rural Nepal.	Context, assessment
Spagnolo, Jessica et al.(2017)	Original Research	Tunisia	Building system capacity for mental health integration at the primary care level in Tunisia	Study protocol in global mental health.
Le, PhuongThao D et al.	Case series article.	Various LMIC in Africa.	Implementation of evidence-based task-sharing mental health therapies in low- and middle-income countries: barriers and enablers	Implementation science frameworks
WHO(2009)	Guidance to improve Mental Health service	Global	Improving the mental health system and services	Cultural integration into mental health service.

Summary of the search results

All journals published in English after launched of mhGAP 2007 to till 2021, all studies are from LMIC country like Nepal, South Sudan, Niger, Kenya, Afghanistan, Chad, Nigeria, Guinea, Haiti, Liberia, Tunisia in national and humanitarian crisis context where resources are very low and few were generalized developed by WHO. Observed common focus was on under the theme of Health system and Infrastructure of a country's health. There was also barriers address under the theme Financial and Mental Health program barrier. Some important suggestions was cited under Social and cultural contextualization. Political barrier also cited in few paper. Some barriers are common under various theme as all this are interlinked. Findings are plotted in a table from Excel sheet.

Findings

Table-2 Barriers and challenges on Implementation.

No	Themes	Barriers
1	**Infrastructural** WHO(2007), Wang, Philip S et al. Faregh, Neda et al.(2019) Saraceno, Benedetto et al. (2007) Ali, S. H., & Agyapong, V. (2016). Jack-Ide, I. O., & Uys, L. (2013). Patel, Vikram et al. (2016) Ventevogel, Peter et al.(2015)	- Split services - Poor health-care service quality - difficulties to access to health-care facilities. - Understaffing. - Lack of technical expertise - Lack medication availability. - Work overload - Lack of UHC - Humanitarian crisis
2	**Financial** Faregh, Neda et al.(2019) Whiteford, Harvey et al. (2016) Saraceno, Benedetto et al. (2007) Ali, S. H., & Agyapong, V. (2016). Jack-Ide, I. O., & Uys, L. (2013). Patel, Vikram et al. (2016) Ventevogel, Peter et al.(2015) Kiima, David, and Rachel Jenkins. (2010)	- Stock out of medicine - Lack funds - Cost of medication - Poverty
3	**Health System** WHO(2007), Wang, Philip S et al. Faregh, Neda et al.(2019) Saraceno, Benedetto et al. (2007) Ali, S. H., & Agyapong, V. (2016). Jack-Ide, I. O., & Uys, L. (2013). Patel, Vikram et al. (2016) Ventevogel, Peter et al.(2015)	- Work overload - Improper referral pathway. - Community mobilization. - Lack of integration into Primary health care system - Lack of stewardship and governance. - Low mental health priority. - Limited center. - Reluctance to recognize non specialist role in Mental health care.
4	**Social and Cultural**	- Stigma

	Saraceno, Benedetto et al. (2007) Ali, S. H., & Agyapong, V. (2016). Patel, Vikram et al. (2011) Meshesha, Hana Shewamoltot, and Veronica Johnson. (2021). Ventevogel, Peter et al.(2015). WHO(2017) Kiima, David, and Rachel Jenkins. (2010). Acharya, Bibhav et al. (2016)	- Disbelief in mental health service - False belief - Mistrust of patient - Patient reluctance - Gender - Religion - Poverty - Limited women's ability to seek treatment. - Lack of community participation and engagement. - Negative bias against some treatment intervention. - Reluctance to recognize non specialist role in Mental health care.
5	**Programmatic** Saraceno, Benedetto et al. (2007) Jack-Ide, I. O., & Uys, L. (2013). Patel, Vikram et al. (2011) Ventevogel, Peter et al.(2015) Kiima, David, and Rachel Jenkins. (2010). Acharya, Bibhav et al. (2016).	- The absence of a national body to oversee the implementation of mhGAP training - Staff retention and turn over. - Wrong person recruitment - Providing training to wrong person - Non stability of trainee - Accountability - Low confidence of trainee - Self-assessment gap - Lack of supervision support for mhGAP trainee. - Long term medication.
6	**Political** WHO(2007), Wang, Philip S et al. Faregh, Neda et al.(2019) Whiteford, Harvey et al. (2016). Ali, S. H., & Agyapong, V. (2016). Jack-Ide, I. O., & Uys, L. (2013).	- Political crisis - Humanitarian crisis - Political tension - Lack of good governance.

The barriers are categorized into themes – 1) Infrastructural, 2) Financial, 3) Health System, 4) Cultural, 5) Programmatic, 6) Political.

Due to near similarity and accordance two themes description is merged and described below-

Infrastructural and Health system-

To be effective, mhGAP training must be tailored to the structure of the local health-care system as well as the practice settings. The relevance of such structural elements in mhGAP implementation has been addressed in few research. In a study of implementing mhGAP guidelines specifically in LMICs, low provider-to-patient ratios, a scarcity of qualified staff, inadequate

funding, an insufficient resources for practitioners to modify their practice, a lack of time to add mental health evaluation to existing clinical work, and a high level of cultural diversity in patient populations were all cited as underlying barriers to adjust and adoption. [3].

In our work we observed challenges related to low provider-to-patient ratio Split services, Poor health-care service quality, difficulties to access to health-care facilities, Understaffing, Lack of technical expertise, Lack medication availability, Work overload.

Social & Cultural Barrier- Broader social issues, such as socioeconomic conditions, cultural norms, and historical background, were found to have a predominantly negative impact on intervention implementation, both in terms of intervention access and continued involvement and delivery. The most significant impediment was revealed to be social norms. Several studies have underlined the necessity of taking cultural norms into consideration when designing and delivering interventions, and have identified key difficulties such as apprehension about discussing psychological feelings or specific taboo themes like death. Gender norms were also highlighted as a component in intervention delivery, since uneven gender relations hampered women's capacity to seek therapy, and counselors and clients' gender pairings must often be taken into account. Economic conditions in the intervention settings were identified as a problem; communities' levels of poverty, compounded by other inequalities, limited people's ability to use services, particularly among marginalized groups. Religion/spirituality was another cited hurdle; beliefs in traditional healing procedures were frequently highlighted as a deeply embedded cultural norm that hindered client involvement in therapies [19].

In our work challenges founds Stigma, Disbelief in mental health service, False belief, Mistrust of patient, Patient reluctance, Gender specially adolescent and married women, Religion, Limited women’s ability to seek treatment, Lack of community participation and engagement, Negative bias against some treatment intervention, Reluctance to recognize non specialist role in Mental health care.

Financial-

Financial setbacks is another major theme in taking care of patient with MNS disorder [6].

In our qualitative thematic analysis of Financial barrier we observed Stock out of medicine, Lack funds, Cost of medication play the main role.

Political-

Local health systems and the population's propensity to accept new health practices are influenced by the political environment of the community, region, and nation where mhGAP training is conducted, both historical and contemporary [3]. In LMIC Political Unrest situations is proportionately Influence GDP, Health service financing and other Health economics aspects. Which causes negatively skewed growth as a result burdened situation become unaddressed. Moreover, in LIMIC this political situation procreate Man made humanitarian crisis, also LMIC

are prone to Natural disaster and other form of Public Health Emergencies. In our work we found the factors cited in various work as barriers.

Overcoming Challenges and Barrier

The kind of obstacles identified will vary greatly depending on the setting, including Infrastructural, health-care system structure, and local culture in LMIC. As a result, general measures to manage or mitigate these difficulties will be context sensitive and must be regionally tailored. The following general recommendations are based on our experiences with the difficulties described in this article. Each technique must be carefully considered to establish its possible applicability and fit in a certain context or location.

Table 3- summarizes the recommendations relevant to distinct difficulties. Table 3 depicts a visual matrix of the identified themes and associated potential solutions. The summary table summarizes the primary problems that we have seen and recorded. At the levels of community participation, stakeholder and supervision, cultural adaptation, and the training process, items are classified as categories of problem and paired with matching types of solution.

As demonstrated, the majority of obstacles are connected to existing health-care institutions, followed by cross-cultural concerns. The bulk of mitigation techniques are based on community participation. While not a full list, summary table provide a way to organize and suggest mitigation techniques for the issues that programmers are likely to face.

Table-3 Recommendation to overcome the challenges and barrier.

No	Themes	Recommendations for challenges prevention/ mitigation
1	**Infrastructural** WHO(2007), Wang, Philip S et al. Faregh, Neda et al.(2019) Saraceno, Benedetto et al. (2007) Ali, S. H., & Agyapong, V. (2016). Jack-Ide, I. O., & Uys, L. (2013). Patel, Vikram et al. (2016) Ventevogel, Peter et al.(2015) Kiima, David, and Rachel Jenkins. (2010). Acharya, Bibhav et al. (2016)	- Proper integration of services Primary health care system - Strengthening PHC services - Improve Health financing and Governance system.
2	**Financial** Faregh, Neda et al.(2019) Saraceno, Benedetto et al. (2007) Ali, S. H., & Agyapong, V. (2016). Jack-Ide, I. O., & Uys, L. (2013). Ventevogel, Peter et al.(2015) Kiima, David, and Rachel Jenkins. (2010).	- Annual Mental health budget - Improving Total health Expenditure (THE). - Collaboration with DP's. - Co-financing

3	**Health System** WHO(2007), Wang, Philip S et al. Faregh, Neda et al.(2019) Acharya, Bibhav et al. (2016)	- Enabling UHC mandate by strengthening PHC services into health care system. - Intensify community outreach activities. - Integration of MHPSS services into health system. - Digital health platform
4	**Cultural** Faregh, Neda et al.(2019) Saraceno, Benedetto et al. (2007) Ali, S. H., & Agyapong, V. (2016). Jack-Ide, I. O., & Uys, L. (2013). Ventevogel, Peter et al.(2015) Kiima, David, and Rachel Jenkins. (2010).	- Addressing cultural context. - Intensify Community based interventions to debunk misinformation. - Pre bunking and inoculation policy making by SBCC.
5	**Programmatic** WHO(2007), Wang, Philip S et al. Saraceno, Benedetto et al. (2007) Ali, S. H., & Agyapong, V. (2016). Jack-Ide, I. O., & Uys, L. (2013).	- Peer supervision - Adapt training tools properly - Adequate time in training conduction. - Planned supervision - Adequate training pre requisite. - Adequate training to non-medical staff. - Proper trainee choosing. - Proper TNA conduction.
6	**Political** WHO(2007), Wang, Philip S et al. Ventevogel, Peter et al.(2015) Kiima, David, and Rachel Jenkins. (2010).	- Engage policy makers. - Advocacy for joint response plan.

Chapter 4

Discussion

Our study reveals number of barriers, challenges and suggested recommendations are described thematically to overcome in an integrated way. Despite the publication of high-profile reports and promising activities in several countries, progress in mental health service development has been slow in most low-income and middle-income countries.[5]. Early mental health care and treatment maintenance are crucial for promoting mental health well-being, identifying mental health concerns, and preventing illness development. Good mental health care is vital for everyone, but it is especially critical for people and families who are dealing with mental illnesses.[7]. To allow trainees to transfer their knowledge into practice, mental health professionals' training curriculum should be culturally appropriate. International frameworks for evaluation, diagnosis, and intervention must be applied in line with country culture's particular conditions. [11]. The quick growth of service delivery is frequently prized over long-term integrated system development, which is a difficulty in expanding health care in highly under resourced areas. This runs the danger of establishing a huge number of low-quality services with little long-term viability. [16]. In LMICs, mental health training is a small part of the undergraduate medical education curriculum. As a result, even the most well-intentioned and dedicated primary care clinicians are ill-equipped to interview, diagnose, and treat these diseases. [17]. Other LMICs interested in establishing and assessing a mental health training program based on the mhGAP-IG can benefit from the lessons learnt from this evaluation. [18]. A mental health strategy should include specific elements that will allow the policy to be implemented. Determine the goals and timeframes; create indicators and targets; determine the primary activities; identify the expenses and resource availability; and finance appropriately are all steps in designing a plan. [20].

Limitations-

Few limitation of this paper acknowledged. Firstly, This is not a systematic review, as a result the principal limitation of the overview is no significant or negative results may come up across the field findings as it is not tested systematic way along with likelihood of publication bias with non-significant studies less likely published studies. A further limitation may come up because of missing some eligible findings. Secondly, the paper is not comprehensive as in our inclusion criteria context was focused in LMIC, we could analyze more to exclude LMIC country data with higher income country. Third due to various limitations quantitative data was not analyzed in spite having opportunity.

Chapter 5

Conclusions

This updated systematic overview on the mhGAP implementation challenges demonstrates increase necessity of its use and evaluation. Limited funding, insufficient specialists to supervise non-specialist workers, insufficient health system structures to support roll-out of task-shared interventions, low community awareness of mental health, and high levels of stigma were identified as barriers to integrating mental health into PHC as per Countries participating in the program for improving mental healthcare (PRIME) study (Ethiopia, India, Nepal, South Africa and Uganda. This overview demonstrated the challenges of the mhGAP implementation from Health care provider side is- lack of practice, inadequate learning, accountability, low confidence, non-suitability of trainee, multi task and rotation of practitioners, staff retention and turn over etc. On the other side of patient/ beneficiary factors creating setbacks are Patient mistrust, lack of community mobilization, patient reluctance along with core gap in lack of medicine, improper referral pathway etc. in relation to mental health disorders.

Recommendations

The overview recommended Health financing/ co financing, cultural context consideration, Proper service integration into PHC services, adapting updated training tools properly, peer supervision, planned supportive supervision, engaging policy makers, Intensification of community outreach activities to optimize the success of mhGAP implementation by preventing and mitigating challenges.

Since the release mhGAP by WHO, made a remarkable impact on Global mental health care practice, policy and research. LMIC countries like Bangladesh should play promising role on to implement mhGAP by alleviating challenges and filling the gaps to make it sustainable.

Data availability statement

Data sharing is not applicable as no datasets were generated and/or analyzed for this study.

Patient and public involvement, Ethics statements

Patient consent for publication and ethics statement Not required, as no involvement done with any patient and public.

References-

[1] World Health Organization. mhGAP intervention guide for mental, neurological and substance use disorders in non-specialized health settings: mental health Gap Action Programme (mhGAP)—version 2.0. Geneva: World Health Organization; 2016.

[2] Wang, P. S., Aguilar-Gaxiola, S., Alonso, J., Angermeyer, M. C., Borges, G., Bromet, E. J., Bruffaerts, R., de Girolamo, G., de Graaf, R., Gureje, O., Haro, J. M., Karam, E. G., Kessler, R. C., Kovess, V., Lane, M. C., Lee, S., Levinson, D., Ono, Y., Petukhova, M., Posada-Villa, J., … Wells, J. E. (2007). Use of mental health services for anxiety, mood, and substance disorders in 17 countries in the WHO world mental health surveys. *Lancet (London, England)*, *370*(9590), 841–850. https://doi.org/10.1016/S0140-6736(07)61414-7

[3] Faregh, N., Lencucha, R., Ventevogel, P., Dubale, B. W., & Kirmayer, L. J. (2019). Considering culture, context and community in mhGAP implementation and training: challenges and recommendations from the field. *International journal of mental health systems*, *13*, 58. https://doi.org/10.1186/s13033-019-0312-9

[4] Whiteford, H., Ferrari, A., & Degenhardt, L. (2016). Global Burden Of Disease Studies: Implications For Mental And Substance Use Disorders. *Health affairs (Project Hope)*, *35*(6), 1114–1120. https://doi.org/10.1377/hlthaff.2016.0082

[5] Saraceno, B., van Ommeren, M., Batniji, R., Cohen, A., Gureje, O., Mahoney, J., Sridhar, D., & Underhill, C. (2007). Barriers to improvement of mental health services in low-income and middle-income countries. *Lancet (London, England)*, *370*(9593), 1164–1174. https://doi.org/10.1016/S0140-6736(07)61263-X

[6] Ali, S. H., & Agyapong, V. (2016). Barriers to mental health service utilisation in Sudan - perspectives of carers and psychiatrists. *BMC health services research*, *16*, 31. https://doi.org/10.1186/s12913-016-1280-2

[7] Jack-Ide, I. O., & Uys, L. (2013). Barriers to mental health services utilization in the Niger Delta region of Nigeria: service users' perspectives. *The Pan African medical journal*, *14*, 159. https://doi.org/10.11604/pamj.2013.14.159.1970

[8] Patel, V., Chowdhary, N., Rahman, A., & Verdeli, H. (2011). Improving access to psychological treatments: lessons from developing countries. *Behaviour research and therapy*, *49*(9), 523–528. https://doi.org/10.1016/j.brat.2011.06.012

[9] Patel, V., Chisholm, D., Parikh, R., Charlson, F. J., Degenhardt, L., Dua, T., Ferrari, A. J., Hyman, S., Laxminarayan, R., Levin, C., Lund, C., Medina Mora, M. E., Petersen, I., Scott, J., Shidhaye, R., Vijayakumar, L., Thornicroft, G., Whiteford, H., & DCP MNS Author Group (2016). Addressing the burden of mental, neurological, and substance use disorders: key messages from Disease Control Priorities, 3rd edition. *Lancet (London, England)*, *387*(10028), 1672–1685. https://doi.org/10.1016/S0140-6736(15)00390-6

[10] Keynejad, R. C., Dua, T., Barbui, C., & Thornicroft, G. (2018). WHO Mental Health Gap Action Programme (mhGAP) Intervention Guide: a systematic review of evidence from low and middle-income countries. *Evidence-based mental health*, *21*(1), 30–34. https://doi.org/10.1136/eb-2017-102750

[11] Meshesha, H. S., & Johnson, V. (2021). A Systematic Review of Culturally Responsive Approaches to Child and Adolescent Mental Health Care in Ethiopia. *Frontiers in sociology*, *5*, 583864. https://doi.org/10.3389/fsoc.2020.583864

[12] World Health Organization. mhGAP Humanitarian Intervention Guide (mhGAP-HIG): Clinical Management of Mental Neurological and Substance Use Conditions in Humanitarian Emergencies: World Health Organization; 2015.

[13] Ventevogel, P., van Ommeren, M., Schilperoord, M., & Saxena, S. (2015). Improving mental health care in humanitarian emergencies. *Bulletin of the World Health Organization*, *93*(10), 666–666A. https://doi.org/10.2471/BLT.15.156919

[14] World Health Organization. Culture and mental health in liberia: a primer. Geneva: World Health Organization; 2017.

[15] Kiima, D., & Jenkins, R. (2010). Mental health policy in Kenya -an integrated approach to scaling up equitable care for poor populations. *International journal of mental health systems*, *4*, 19. https://doi.org/10.1186/1752-4458-4-19

[16] Ventevogel, P., van de Put, W., Faiz, H., van Mierlo, B., Siddiqi, M., & Komproe, I. H. (2012). Improving access to mental health care and psychosocial support within a fragile context: a case study from Afghanistan. *PLoS medicine*, *9*(5), e1001225. https://doi.org/10.1371/journal.pmed.1001225

[17] Acharya, B., Hirachan, S., Mandel, J. S., & van Dyke, C. (2016). The Mental Health Education Gap among Primary Care Providers in Rural Nepal. *Academic psychiatry : the journal of the American Association of Directors of Psychiatric Residency Training and the Association for Academic Psychiatry*, *40*(4), 667–671. https://doi.org/10.1007/s40596-016-0572-5

[18] Spagnolo, J., Champagne, F., Leduc, N., Piat, M., Melki, W., Charfi, F., & Laporta, M. (2017). Building system capacity for the integration of mental health at the level of primary care in Tunisia: a study protocol in global mental health. *BMC health services research*, *17*(1), 38. https://doi.org/10.1186/s12913-017-1992-y

[19] Le, P. D., Eschliman, E. L., Grivel, M. M., Tang, J., Cho, Y. G., Yang, X., Tay, C., Li, T., Bass, J., & Yang, L. H. (2022). Barriers and facilitators to implementation of evidence-based task-sharing mental health interventions in low- and middle-income countries: a systematic review using implementation science frameworks. *Implementation science : IS*, *17*(1), 4. https://doi.org/10.1186/s13012-021-01179-z

[20] World Health Organization (2009). Improving health systems and services for mental health. Geneva: WHO Press. Available at: https://apps.who.int/iris/bitstream/handle/10665/44219/9789241598774_eng.pdf?sequence=1