



THE AGA KHAN UNIVERSITY



Brain & Mind Institute



The Aga Khan University Hospital



EXECUTIVE SUMMARY

Healing the brain

Bridging the Gap in Low-and Middle-Income Countries

November 15 - 17, 2023

Radisson Blu Hotel, Upperhill, Nairobi, Kenya



THE AGA KHAN UNIVERSITY
INSTITUTE FOR HUMAN DEVELOPMENT



THE AGA KHAN UNIVERSITY
MEDICAL COLLEGE, EAST AFRICA







By emphasizing capacity-building, promoting collaboration, and nurturing innovation, we hope to inspire change at multiple levels – from policy-making corridors to grassroots community engagements.

Foreword

Greetings, As the Founding Director of the Aga Khan University's Brain and Mind Institute (BMI), it was my distinct honor and privilege to host you for the Brain Health Conference that took place in the heart of Nairobi, Kenya, from November 15-17, 2023.

In the sphere of global health, the mental and neurological well-being of individuals remains a priority, and yet, it's an area that, for far too long, has been overshadowed by a plethora of challenges, particularly in low- and middle-income countries (LMICs). From inadequate healthcare infrastructures to a lack of specialized professionals, the roadblocks are numerous, tangible, and often heartbreaking. The ensuing void in timely and appropriate care leaves countless individuals and their families grappling with conditions that are, in many cases, manageable if not preventable.

It is against this backdrop of challenges that the Aga Khan University's Brain and Mind Institute was established, with goals that extend far beyond conventional academic and research aspirations. At BMI, we envision a transformative shift in how brain and mental health are approached,

understood, and treated, especially in the vulnerable regions of East Africa and South & Central Asia.

The 'Healing the Brain: Bridging the Gap in Low- and Middle-Income Countries' conference resonates deeply with the goals of our institute. By emphasizing capacity-building, promoting collaboration, and nurturing innovation, we hope to inspire change at multiple levels – from policy-making corridors to grassroots community engagements. Furthermore, by emphasizing the development of contextually relevant research and integrating holistic educational curricula, we aim to ensure that solutions are not only groundbreaking but also culturally and geographically fitting.

Another significant element is our investment in the youth – the torchbearers of tomorrow. By understanding and



We are most delighted by the deliberations held by stakeholders, researchers, policymakers, and individuals passionate about this matter who joined us over the three-day conference.

addressing their unique mental health challenges and potentials, we hope to foster resilience, promote mental well-being, and build a future where they not only survive but thrive.

I am particularly enthused about the pre-conference sessions, which shed light on the dire need for global investment in brain health, encouraged young researchers, and fostered collaborative engagements. The main conference themes were carefully curated to touch on pivotal areas in the field, from global challenges and solutions in LMICs to understanding the intricate

tapestry of culture, society, and mental health.

We are most delighted by the deliberations held by stakeholders, researchers, policymakers, and individuals passionate about this matter who joined us over the three-day conference. Together, we can and must bridge the gap, combat stigma, and advocate for sustainable and equitable brain health solutions. It is not just an academic or medical pursuit; it is a moral, societal, and humanitarian imperative.

Institute

In collaboration and with hope,

Z. Merali

Prof Zul Merali, Founding Director,
Aga Khan University's Brain and Mind



Executive Summary

A global conference that sought to begin critical conversations about brain and mental health by bringing together partners across the board to journey with BMI in achieving our vision of a healthy brain and healthy world.


The world converged in the heart of East Africa to deliberate on brain and mental health, a subject affecting the lives of people across the world in rapidly increasing and startling ways. The time had come to inspire hope and chart a path to finding lasting solutions to this pressing need. The Brain and Mind Institute at the Aga Khan University put together a global conference that sought to begin these critical conversations by bringing together partners across the board to journey with BMI in achieving our vision of a healthy brain and healthy world by putting in measures that culminate in bringing the right care at the right time to the right place, especially in low- and middle-income countries. This was spurred on by our mission to advance brain health through collaborative research, education, and innovation in mental health and neuroscience.

The Healing the Brain: Bridging the Gap in Low- and Middle-Income Countries (LMICs) conference was held at the Radisson Blu Hotel in Nairobi, Kenya, from 15th to 17th November 2023. The inaugural conference lived up to its expectations, strategically bringing stakeholders together to share ideas and providing a platform for learning from solutions for mental health in LMICs. Over 300 delegates, 50 mental health experts, neuroscientists, researchers, sociologists, anthropologists, and various neuroscience and mental health exhibitors explored innovative solutions and strategies to promote brain health in LMICs.

There was consensus that indeed there is no health without brain health. Beyond the conference, delegates and attendees pledged to champion mental and brain health as a human right and advocated for laws supporting this aspiration.

 Over **300**
delegates

50
mental health experts, neuroscientists, researchers, sociologists, anthropologists, and various neuroscience and mental health exhibitors

 There was consensus that indeed there is no health without brain health

 Brain health as a human right

The [Nairobi Statement on Brain Health](#) emerged as a living document inspiring collective action globally for mental health and wellness. It emphasizes brain health as a human right, calls for increased resource allocation, swift action, a comprehensive approach across the spectrum, enhanced professional training, prioritized research, and critical advocacy.

The conference aimed to exchange cutting-edge research in brain and mental health, raise awareness of LMICs' brain health challenges, facilitate collaboration among experts, identify innovative solutions for improved care and research, and promote integration of brain health into healthcare systems.

BMI and its partners remain steadfast, bringing hope as we pursue our vision of a healthy brain and healthy world inspired and spurred on by the insights from the conference. Collectively, delegates and experts discussed the dynamics of mental health and neuroscience on the global landscape and emerged with recommendations to strengthen research, funding, and interventions to bridge the gap and foster mental well-being in LMICs.





Challenges

Low- and middle-income countries (LMICs) face numerous challenges in the areas of care, treatment, research, and innovation in brain and mental health.

1. Stigma and discrimination

Stigma surrounding mental illness remains a significant barrier to care in LMICs. According to the World Health Organization (WHO), stigma prevents many individuals from seeking help, leading to delays in diagnosis and treatment.

2. Limited resources and infrastructure

LMICs often have limited resources and infrastructure for mental healthcare. The WHO reports that over 75% of people with mental disorders in LMICs receive no treatment, primarily due to a lack of resources and trained professionals.

3. Shortage of skilled workforce

There is a shortage of mental and brain health professionals, including psychiatrists, neurologists, psychologists, and psychiatric nurses, in LMICs. The WHO estimates that the global median number

of psychiatrists per 100,000 population is 0.1 in low-income countries and 1.3 in lower-middle-income countries, compared to 9 in high-income countries.

4. Access to medications

Access to essential psychotropic medications is limited in many LMICs due to factors such as cost, availability, and regulation. The WHO reports that only 33% of LMICs have a standalone mental health medication policy, contributing to disparities in access to treatment.

5. Underfunding and budget allocation

Mental health is often underfunded and receives a small portion of overall health budgets in LMICs. The WHO estimates that the median share of mental health in total government health expenditure is 2.2% in low-income countries and 2.8% in lower-middle-income countries, compared to 5.1% in high-income countries.



Stigma surrounding mental illness remains a significant barrier to care in LMICs.

• — •

OVER 75%

of people with mental disorders in LMICs receive no treatment

• — •



There is a shortage of research and data

on mental and brain health

• — •



Cultural beliefs and language barriers can impact the

delivery of mental health services

6. Lack of research and data

There is a shortage of research and data on mental health in LMICs, limiting the understanding of the burden of disease and effective interventions. The Lancet Commission on Global Mental Health and Sustainable Development highlights the need for increased research funding and data collection in LMICs.

7. Cultural and linguistic barriers

Cultural beliefs and language barriers can impact the delivery of mental health services and the acceptability of interventions. Adapting interventions to local contexts and languages is essential for effective implementation.

8. Conflict and humanitarian crises

LMICs affected by conflict and humanitarian crises face additional challenges in providing mental health care. The WHO estimates that up to 20% of people living in conflict-affected areas have mental health conditions, yet the availability of mental health services is often limited.





Opportunities

Low- and middle-income countries (LMICs) have several opportunities to accelerate care, treatment, research, and innovation in brain and mental health.

1. Integration into primary healthcare

Integrating mental health services into primary healthcare systems can improve access to care. According to the World Health Organization (WHO), over 90% of LMICs have mental health policies, and integrating mental health into primary care is considered cost-effective and feasible.

2. Task shifting and training

Task shifting, where non-specialist healthcare workers are trained to deliver mental health services, can expand the workforce. For example, training primary healthcare workers in mental health interventions can effectively address depression and anxiety disorders.

3. Telemedicine and technology

Leveraging telemedicine and digital technologies can overcome barriers of distance and accessibility. With the

increasing penetration of mobile phones, telemedicine offers a scalable solution. For instance, a study published in the Journal of Medical Internet Research found that mobile phone-based interventions were effective in improving mental health outcomes in LMICs.

4. Community-based interventions

Community-based interventions, including peer support groups and community outreach programs, can address stigma and improve access to care. Research published in The Lancet Psychiatry suggests that community-based interventions can effectively reduce symptoms of depression and anxiety in LMICs.

5. Research collaboration and funding

Collaborating with international partners and accessing funding opportunities can support research and innovation in LMICs.

Accessing funding opportunities can support research and innovation



• — •



non-specialist healthcare workers

are trained to deliver mental health services

• — •

community-based interventions can effectively reduce symptoms of depression and anxiety



• — •



Increasing public awareness and education about mental health can reduce stigma

6. Policy and advocacy

Advocating for mental health policies and increased funding can raise the priority of brain and mental health on national agendas. Only 1.4% of the health budgets in LMICs are allocated to mental health, highlighting the need for increased investment.

7. Cultural adaptation

Tailoring interventions to local cultural contexts can enhance acceptability and effectiveness. Studies have shown that culturally adapted interventions are more effective in improving mental health outcomes in LMICs.

8. Public awareness and education

Increasing public awareness and education about mental health can reduce stigma and encourage help-seeking behaviors. Stigma is a major barrier to mental health care in LMICs, with individuals often facing discrimination and social exclusion.

These opportunities, when leveraged effectively, can contribute to improving brain and mental health outcomes in LMICs, addressing the significant burden of mental illness in these regions.





Recommendations

Healing the Brain Conference Recommendations for a Healthy Brain and Healthy World - To improve brain and mental health initiatives locally and globally:

Practitioners

- 1. Primary Care Focus:** Embed mental health screening in primary care for early detection and intervention.
- 2. Advanced Neuroimaging:** Incorporate advanced neuroimaging for enhanced neurological assessments.
- 3. Telehealth Utilization:** Utilize telemetry and tele-neurology for epilepsy management.
- 4. Strategic Collaboration:** Foster collaboration between government and stakeholders for digital mental health interventions.
- 5. Referral Pathways:** Develop referral pathways from primary to specialized care for mental health treatment, integrating mental health support into comprehensive cancer care.

Funders and donors

- 1. Neuropsychology Support:** Secure consistent funding for global neuropsychology and brain health initiatives.
- 2. Cultural Relevance:** Invest in culturally relevant community-based mental health interventions, adapting successful global programs for African contexts.
- 3. Comprehensive Funding:** Prioritize comprehensive funding models covering the entire mental health spectrum, including suicide prevention and community-based models.

Research and Advocacy

1. **Media Awareness:** Raise awareness about mental and brain health disorders through media for destigmatization.
2. **Youth Mental Health:** Develop innovative programs addressing youth mental health needs in LMICs.
3. **Transformative Delivery:** Advocate for transformative mental health service delivery by integrating global research with local creative approaches.
4. **Dementia Research Capacity:** Enhance dementia research capacity in Africa through specialized programs.
5. **Culturally Sensitive Tools:** Create culturally sensitive dementia screening tools for LMIC populations and bridge the gap between mental and maternal health care.

Policy

1. **Holistic Approach:** Promote holistic mental and brain health strategies in low- and middle-income countries with innovative funding, integrated services, and community-based care.
2. **Cultural Inclusivity:** Use culturally inclusive tools and encourage multisectoral collaboration for effective digital interventions.
3. **Community Foundation:** Establish community-based healthcare as the foundation of robust health systems, prioritizing transformative global mental health care.

Community

1. **Surveillance and Safety Nets:** Implement community-based surveillance for at-risk individuals and improve mental health.
2. **Lived Experiences Involvement:** Involve individuals with lived experiences in mental health decision-making.
3. **Maternal Mental Health Education:** Educate about maternal mental health to reduce stigma.
4. **Storytelling and Advocacy:** Use personal stories to destigmatize mental health, promote compassion, change social and cultural norms hindering mental health care access, advocating for affordable services.