

<b>Institution:</b> University of Chester		
<b>Unit of Assessment:</b> 3 Allied Health Professions, Dentistry, Nursing and Pharmacy		
<b>Title of case study:</b> Assessing and managing mental health care in community settings through the development of the Global Mental Health Assessment Tool (GMHAT)		
<b>Period when the underpinning research was undertaken:</b> 2010 – 2019		
<b>Details of staff conducting the underpinning research from the submitting unit:</b>		
<b>Name(s):</b> Vimal Sharma	<b>Role(s) (e.g. job title):</b> Professor	<b>Period(s) employed by submitting HEI:</b> 2011 - 2019
<b>Period when the claimed impact occurred:</b> 2017 onwards		
<b>Is this case study continued from a case study submitted in 2014?</b> No		

### 1. Summary of the impact (indicative maximum 100 words)

According to World Health Organisation (WHO) estimates, more than 80% of people in need of mental health care cannot access it; mental health disorders worldwide are under-reported, under-diagnosed, and under-resourced. The Global Mental Health Assessment Tool (GMHAT) has reshaped the identification of mental disorders worldwide, assisting health practitioners in rapid yet accurate assessments, especially amongst hard-to-reach groups (such as refugees). Via ongoing translations into multiple languages, GMHAT and its associated training programme have enhanced the knowledge and skills of frontline health and community workers in India, Colombia and the Middle East, alongside contributing to quality improvement through advancing policies, guidelines, and practice.

### 2. Underpinning research (indicative maximum 500 words)

#### Context

Worldwide, there is a significant shortfall in the provision of mental health services relative to need. This deficit is particularly acute in low- and middle-income countries, with mental health provision costs prohibitive as regards many countries' budgets. Diagnosis is the first step to effective treatment, and **Sharma** led on the development of GMHAT, a computer assisted real world assessment tool, which allows accurate identification of various mental health disorders, thus supporting health and social care practitioners to address the unmet need of mental distress within their communities. Development of the GMHAT passed through a number of stages; initial development and reliability testing (stage 1), translation into multiple languages together with international validity testing (stage 2), and the development of an associated intensive training package for community mental health workers in using GMHAT (stage 3). GMHAT is a user-friendly assessment measure, and, following a brief training seminar, can be used immediately in practice to increase mental health support towards individuals in global social settings. GMHAT is a tool that has a series of rated questions that individually identify areas of mental health concern that provides a treatment referral plan. GMHAT can be used on any electronic system and is free to use.

#### Stage 1: Initial Development

Initial development, reliability testing, and validity measuring took place in the UK initially from 2004 onward **[R1]**. A number of further studies assessing the reliability and validity of GMHAT took place between 2004 and 2016. The research led to the recognition of GMHAT in academia, and, perhaps more pertinently, in the wider public services arena. An important component of the initial phase was testing the reliability and validity of the tool when it was used by healthcare professionals that were not psychiatrists internationally (e.g. nurses, GPs), as well as the applicability across the life course **[R1]**. Validation studies of the GMHAT in various settings have found sensitivity ranges from 0.73 to 0.84 and specificity from 0.90 to 0.96 **[R1, R3]**. Outputs have continued to test the tool with a deliberate changing focus towards educational roll out, equipping staff on the ground with skills across many countries.

**Stage 2: International Translations**

From its inception, GMHAT was designed to be applied worldwide, hence the need to establish reliability and validity at international level. The tool was translated into various languages, with research then undertaken to establish that these translated versions would replicate the validity and reliability of the original setting. This included versions in Hindi [R2] Arabic [R1], Spanish [R3], and Marathi [R5], which demonstrated similar findings to those in the UK context, reaffirming the effectiveness of the tool.

**Stage 3: Intensive Training Package and Use of GMHAT for Co-morbidities**

Having achieved accuracy, the next stage was practical application; the development of a training package to support health and care workers to incorporate mental health assessment into their work. The training package aimed to assist in overcoming the shortage of qualified mental health practitioners; GMHAT can be employed by all allied health professionals or volunteers following an intensive workshop. GMHAT has also been successful when applied to co-morbidities between mental and physical health. This has included identifying mental health needs of people with risks related to physical conditions, including respiratory disease [R2], cancer [R3], and chronic diseases linked to old age [R6], but who often find that their mental health difficulties are overshadowed by their physical health concerns.

GMHAT validity and reliability outputs have reduced post-2016 as training and roll-out globally has increased. GMHAT continues to be translated and utilised in new settings worldwide.

**3. References to the research** (indicative maximum of six references)

**R1: Sharma VK**, Durrani S, Sawa M, Copeland JR, Abou-Saleh MT, Lane S, Lepping P. Arabic version of the Global Mental Health Assessment Tool-Primary Care version (GMHAT/PC): a validity and feasibility study. *East Mediterr Health J.* 2013 Nov;19(11):905-8. PMID: 24673079.

**R2: Sharma BB**, Singh S, **Sharma VK**, Choudhary M, Singh V, Lane S, Lepping P, Krishna M, Copeland J. Psychiatric morbidity in chronic respiratory disorders in an Indian service using GMHAT/PC. *Gen Hosp Psychiatry.* 2013 Jan-Feb; 35 (1):39-44. doi: 10.1016/j.genhosppsych.2012.09.009. Epub 2012 Oct 31. PMID: 23122486.

**R3: Tejada P**, Polo, GJ., Jaramillo, LE. & **Sharma, VK.** (2017). Psychiatric morbidity in medically ill patients by means of the Spanish version of the Global Mental Health Assessment Tool - Primary Care (GMHAT/PC). *International Journal of Culture and Mental Health*, 10(1), 82-89.

**R4: Tejada P**, Jaramillo LE, Garcíab J, **Sharma V.** The Global Mental Health Assessment Tool Primary Care and General Health Setting Version (GMHAT/PC) – Spanish version: A validity and feasibility study *Eur. J. Psychiat.* Vol. 30 (3): 195-204

**R5: Tendolkar V**, Behere PB, Sr. Sebastian T, **Sharma V** & Deshmukh, P. (2017). "Validity of Marathi Version of Global Mental Health Assessment Tool (GMHAT /PC) for diagnosis of persons with Psychiatric illness from rural Maharashtra" in Prakash B. Behere, Vimal K. Sharma, Vinay Kumar, & Vishal A. Shah, *Mental Health Training for Health Professionals: Global Mental Health Assessment Tool (GMHAT)*, Publications Committee, Indian Psychiatric Society, Haryana, pp. 23-42.

**R6: Krishna M**, Jones S, Ramya MC & **Sharma V.** (2017). "Use of GMHAT/PC in old age population in India" in Prakash B. Behere, Vimal K. Sharma, Vinay Kumar, & Vishal A. Shah, *Mental Health Training for Health Professionals: Global Mental Health Assessment Tool (GMHAT)*, Publications Committee, Indian Psychiatric Society, Haryana, pp. 141-149.

**4. Details of the impact** (indicative maximum 750 words)**Overview**

The GMHAT project has had three main areas of impact. The first is the training of healthcare workers to improve their skill and efficiency in identifying mental health problems, and consequently supporting the needs of people in distress. The second is the supporting of community-level projects to meet the needs of those communities. The third is to positively impact on policy and guidelines to support quality improvement in services. GMHAT is culturally sensitive and directly benefits persons with mental health issues to be identified, supported, and signposted into available local services. A real strength is that it can be used in resource-poor countries and across an individual's life course.

**Training**

Professor Sharma and his colleagues have trained over 100 health professionals in the UK, 500 health professionals and NGOs in India between 2015- 2018 ( Rajasthan, Maharashtra, Madhya Pradesh, Karnataka states), over 50 in Colombia, 20 in the Middle East, and 30 in Africa. GMHAT training programme workshops have been organised at the World Congress (World Psychiatry Association 2018), and National conferences in India (2019) and Colombia (2012- 2018). The tool has been translated into multiple languages, including Hindi, Chinese, Spanish, Arabic, Dutch, German, Tamil, Welsh, and Portuguese [S4]. The Arabic version of the tool was published by the Eastern Mediterranean Regional Office of the World Health Organisation, with plans to train non-specialist health practitioners who are involved in the care of Syrian refugees in Turkey to adopt the GMHAT in the assessment of mental health issues [S8]. GMHAT can be accessed via a computer, tablet, or mobile phone, increasing its potential to be used in rural and hard to reach communities [S2a]. The Marathi version of the tool has both PC and portable android versions, and has been used by many nursing and psychiatry professionals completing postgraduate studies [S8]. To date, GMHAT training has been delivered to, and implemented by, nurses, ASHA (Accredited Social Health Activists) workers, psychologists, doctors, and social workers, and GMHAT has been used in hospital and community settings in different parts of the world [S2a, with specific examples in S4, S5, S6, S8, S9].

In India, Professor Sharma was involved in training frontline health workers via mental health camps and workshops, which were followed up with further advice via video calling and WhatsApp messages; after attending training, frontline health workers were able to gain a better understanding of mental health, and appreciation of its significance, with one trained worker noting *"When we went to the field and looked at the survey, we found that mental health is as important and necessary as physical health"* [S5]. The trained frontline health workers were able to administer 918 GMHAT interviews, thereby identifying 84 cases of psychiatric illness in rural areas of Rajasthan [S5]. Professor Sharma is said to have *"successfully created a new generation of mental health clinician researchers in India who are leading the mental health primary care research"* [S4].

In Columbia, the virtual course "Training in mental health for health professionals through the use of GMHAT" has been running since 2019, and has been completed by 57 people, including nurses, doctors, and psychologists. At the beginning of the course, students' knowledge about mental illness averaged 6.6/10, and the ability to perform a mental exam assessment was 6/10. At the end of the course, these values increased to 8.2/10 and 8.7/10 respectively. 85% of the participants rated this course as good or excellent [S6].

**Community-level projects**

The research studies led to worldwide recognition of GMHAT. More importantly, this has led to improving skills and knowledge of health workers in detecting and managing mental health problems; *"Professor Sharma's contribution and commitment to a non-commercialised and freely available tool is considerable, bringing comprehensive mental health assessment to non-psychiatrists, particularly those working in primary care and community settings"* [S3a].

## Impact case study (REF3)

At a regional level in North West England, the tool has been trialled at two GP medical practices (Blackheath Medical Centre and Kings Lane Medical Practice, both in the Wirral) to ascertain the utility of the tool for use by GP practice staff (including doctors, practice nurses, and health care assistants) in the assessment of their patients' mental health symptoms. This health care professional-led research is ongoing [S3a, S3b]. A validation study is also taking place in South West London to use the tool as part of community addiction services; non-specialist health and social care staff are being trained in the use and application of GMHAT for the recognition and diagnosis of mental health problems in service-users with alcohol and drug misuse issues [S8].

At international level, the South Asia Self Harm Initiative (SASHI project) has utilised GMHAT. The Co-Director of Centre for Mental Health and Society from Bangor University was awarded a grant from the Tropical Health Education Trust's Health Partnership Scheme, which is funded by the Department for International Development (2015-2017) [S7]. The £60,000 award supported an educational programme in India focusing on training-the-trainers to establish a sustainable programme, so that 100 general doctors in two hospitals will be able to assess people who have harmed themselves, and arrange treatment for mental illness where appropriate.

The Professor of Social Psychiatry at Bangor University explains: *"This project has been designed with our colleagues in Mysore to meet a need that they have identified. We are working as a true collaboration, and sustainability beyond the life of the project is a key element. The team used GMHAT developed by Professor V. Sharma, which guides health professionals with no psychiatric training through an assessment process."* This supported the development of a suicide register, which was an important policy/practice change, to help address the under-reporting and therefore unmet need of people who experienced suicidal thoughts [S7].

### Policies and guidelines

As a result of the success of the research, the Home Office and Public Health England approached Sharma with the possibility of using GHMAT to address the unmet needs of immigrants arriving in the UK, including some 20,000 Syrian refugees [S8]. In December 2016, the Home Office and Public Health England in collaboration with the International Organization for Migration (IOM) began a pilot of the Global Mental Health Assessment Tool (GMHAT) among Syrian refugees who have been accepted for resettlement to the United Kingdom (UK). This evaluative report found that the tool worked in practice at identifying immediate mental health needs requiring urgent attention during the pre-departure stage, and in facilitating diagnoses, referrals and treatment once in the UK [S1]. The tool was tested in one clinic in Beirut, Lebanon, with 200 Syrian refugees aged 18 years and above who were being processed for resettlement to the UK as part of the Vulnerable Persons Resettlement Scheme (VPRS). This early intervention allowed those identified to receive care on entry to the UK. The findings suggest that a pre-departure mental health assessment could be a useful and valuable tool to facilitate UK authorities matching and preparing for new refugee arrivals, and a valuable resource for GPs during the initial consultation. 18 out of 200 (9%) presented with a likely diagnosis of mental health issues, with an impact on functioning and significant subjective distress as identified by the GMHAT, most commonly depression and anxiety. The findings suggest that it may be necessary to expand the provision of culturally-appropriate mental health services for refugees for the pre-departure mental health assessment to have maximum impact. Recent work by the Home Office to map the coverage of mental health services for refugees and asylum seekers in England may be helpful in addressing some of these gaps. Public Health England has now adopted GMHAT and is scheduled to use it for the mental health assessment of 4,000 refugees from the Middle East and Africa in 2021 [S8]. Promotion of GMHAT by the Home Office and Public Health England is a clear marker of the tool extending its reach at a governmental policy level [S1].

The research has already led a significant cultural change in integrating mental health in general health, and raising mental wellbeing in the whole of the Indian Border Security Force (257,000 staff) [S2a, S2b]. As a result of the success of using GMHAT, there has been a policy change to implement its use as part of their annual routine health check. Rajasthan State Police (India) has already taken the same approach where we trained their 50 doctors and nurses in the use of GMHAT [S5]. Since 2017, the Indian Border Security Force has incorporated GMHAT as part of



**Impact case study (REF3)**

their health and wellbeing assessments. Additionally, an epidemiological study was conducted using GMHAT (conducted by Atal Bihari Vajpayee, Institute of Good Governance and Policy Analysis in Bhopal), to understand the wellbeing of government employees across a range of workplaces, including banks, police services, schools, and hospitals [S2a].

GMHAT is a tool and training approach with international reach for direct societal citizen benefit, which helps in raising standards of mental health provision worldwide.

### **5. Sources to corroborate the impact** (indicative maximum of 10 references)

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**S1:** Home Office pilot evaluation report on using GMHAT with Syrian refugees (2019)

<https://www.gov.uk/government/publications/the-global-mental-health-assessment-tool-gmhat-pilot-evaluation-final-report>

**S2a:** South Asian International Division Newsletter, Published January 2019, article on GMHAT by Lead Psychiatrist, Hank Nunn Institute, Bangalore, India, summarising development and use of GMHAT in settings across India

**S2b:** Article from Hindustan Times (Mar 21, 2017) regarding Border Security Force training workshop <https://www.hindustantimes.com/india-news/more-bsf-men-dying-of-mental-illness-lifestyle-diseases-rather-than-operations/story-T5mlsZKTUVNy98BLpJXb2O.html>

**S3a:** Letter from Lead Physician, Blackheath Medical Centre, Wirral, UK - lead GP on use of GMHAT in primary care in North West England

**S3b:** NHS Information Leaflet regarding <https://www.england.nhs.uk/north/wp-content/uploads/sites/5/2018/05/Do-patients-find-it-acceptable-Use-of-Global-Mental-Health-Assessment-Tool.pdf>

**S4:** Letter from Consultant Psychiatrist and Senior Research Fellow, Foundation for Research and Advocacy in Mental health, Mysore, India, regarding esteem of Professor Sharma, and translations of GMHAT.

**S5:** Testimonial from Principal at IIMR University in Jaipur, India, regarding support for international reach of the GMHAT training and tool – training GMHAT sessions, research GMHAT (including two testimonials from training attendees)

**S6:** Testimonial from Associate Professor at Universidad El Bosque, Colombia, outlining virtual training using Spanish translation of GMHAT.

**S7:** Testimonial from Professor of Social Psychiatry, Co-Director of Centre for Mental Health and Society, Bangor University (Wales) - regarding GMHAT integration into THET project for training psychiatrists in Mysore in 2015 / SASHI project for networking re: suicide

**S8:** Letter from Professor of Psychiatry, St George's, University of London, UK, outlining GMHAT use with refugee and asylum seekers from Syria, notes on translation of GMHAT into Arabic, and increasing UK-based use of the tool in assessments for community addiction services.

**S9:** Testimonial from Director Professor of Psychiatry, former Director of School of Advance Studies at the Datta Meghe Institute of Medical Sciences, Deemed University, Wardha, India GMHAT PhD studies; regarding use of GMHAT by healthcare professional's postgraduate studies in India.