

# Stigma and discrimination related to mental illness in low- and middle-income countries

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**Aims.** This paper aims to provide an overview of evidence from low- and middle-income countries (LAMICs) worldwide to address: the nature of stigma and discrimination, relevant context-specific factors, global patterns of these phenomena and their measurement and quantitative and qualitative evidence of interventions intended to reduce their occurrence and impact. The background to this study is that the large majority of studies concerned with identifying effective interventions to reduce stigma and discrimination originate in high-income countries (HICs). This paper therefore presents such evidence from, and relevant to, LAMICs.

**Methods.** Conceptual overview of the relevant peer-reviewed and grey literature on stigma and discrimination related to mental illness in LAMICs are available in English, Spanish, French and Russian.

**Results.** Few intervention studies were identified related to stigma re-education in LAMICs. None of these addressed behaviour change/discrimination, and there were no long-term follow-up studies. There is therefore insufficient evidence at present to know which overall types of intervention may be effective and feasible and in LAMICs, how best to target key groups such as healthcare staff, and how far they may need to be locally customised to be acceptable for large-scale use in these settings. In particular, forms of social contacts, which have been shown to be the most effective intervention to reduce stigma among adults in HICs, have not yet been assessed sufficiently to know whether these methods are also effective in LAMICs.

**Conclusion.** Generating information about effective interventions to reduce stigma and discrimination in LAMICs is now an important mental health priority worldwide.

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**Key words:** Discrimination, evidence-based psychiatry, health service research, mental illness stigma.

## Introduction

Although stigma and discrimination are now recognised as major barriers to full social inclusion for people with mental illness across the world, most research in this area originates from high-income countries (HICs). This paper aims to provide a conceptual overview of the evidence from low- and middle-income countries (LAMICs) worldwide, and summarises: the nature of stigma and discrimination, relevant context-specific factors, global patterns of these phenomena and their measurement, and quantitative and qualitative evidence of interventions intended to reduce their occurrence and impact.

## The nature of stigma

The stigma associated with mental illness contributes significantly to the burden of mental illness. Subjective accounts of people affected by mental illness testify that its effects are often perceived as more burdensome and distressing than the primary condition itself (Thornicroft, 2006). The term stigma refers to 'a social devaluation of a person' (Thara & Srinivasan, 2000, p. 135), due to an 'attribute that is deeply discrediting' (Goffmann, 1963, p. 3), and can be conceptualised as consisting of 'problems of ignorance, prejudice and discrimination' (Thornicroft, 2006, p. 182). Discrimination leads to disadvantages in many aspects of life, including personal relationships, education and work. As a result of the stigma which is internalised, some people with mental illness may come to accept the discrediting prejudices held against them, and so lose self-esteem, leading to feelings of shame, a sense of alienation and social withdrawal (Ritsher *et al.* 2003; Ritsher & Phelan, 2004). Therefore, people with mental illness often expect to be

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treated in a discriminatory way ('anticipated discrimination') and try to hide their illness, or to stop themselves from taking up opportunities (Ritsher *et al.* 2003; Thornicroft, 2006). A related concept is that of the Right to Health, or its violation, which is an important component of the United Nations Convention on the Rights of Persons with Disabilities (United Nations, 2006).

Although it is widely accepted that stigma and discrimination are at present universal phenomena, experiences of stigma and discrimination are often manifested in specifically local ways (Murthy, 2002). Yang *et al.* point out that 'across cultures, the meanings, practices and outcomes of stigma differ, even when we find stigmatisation to be a powerful and often preferred response to illness, disability and difference' (Yang *et al.* 2007, p.1528).

Although there is now a strong evidence base describing stigma, the great majority of these studies have been carried out in high-income settings (Corrigan *et al.* 2012; Griffiths *et al.* 2014; Knaak *et al.* 2014; Thornicroft *et al.* 2015). Research is clearly needed to understand which aspects of stigma and discrimination are the most common and burdensome in LAMIC settings, where about 85% of the world's population live, and to clarify which determinants of stigma are potentially modifiable. The aim of this paper is to contribute an understanding of stigma and discrimination that considers context-specific factors, and the evidence related to stigma from LAMICs that will serve to inform interventions intended to reduce stigma and discrimination. The method used is a narrative review, drawing up recent relevant primary data papers and literature reviews.

#### *Context-specific factors relevant to stigma and discrimination in LAMICs*

In LAMICs, as in any other setting, experiences of stigma and discrimination are subject to the influence of local cultural factors (Murthy, 2002). Key domains through which culture shapes the manifestations of stigma include: (i) notions of 'mental illness' and explanatory models (e.g., in many settings, psychiatric symptoms may not be seen as indicative of an 'illness', and sometimes attributed to supernatural forces); (ii) cultural meanings of the impairments and manifestations caused by the disorder and its stigma (e.g., the impact of stigma on a person's marital prospects may have a different impact on a person's life depending on the cultural meaning attached to marriage in a given society); and (iii) concepts of self and personhood (e.g., higher levels of family cohesion may offer more support, but also go along with a more widespread impact of stigma across family members and generations).

However, differences between settings, including between HICs and LAMICs, go beyond 'cultural' differences (i.e., differences relating to beliefs and norms). Socio-economic factors, such as poverty and access to healthcare, have long been found to be associated with outcomes of mental illness (Lund *et al.* 2011) and determine the context in which stigma is enacted and experienced (Switaj *et al.* 2009; Thornicroft *et al.* 2009; Livingston & Boyd, 2010; Evans-Lacko *et al.* 2013). In India and other LAMICs, where most people with mental illness do not have access to social welfare benefits, the negative economic consequences of stigma, e.g., through discrimination in work, may be so severe as to threaten the economic survival of entire families (Koschorke *et al.* 2014).

#### *Global patterns of stigma and discrimination*

There are few studies comparing the frequency of experiences of stigma and discrimination in different contexts. Recent research has sought to address this gap in the literature. International surveys of experienced and anticipated discrimination among people with schizophrenia (27 countries) and among people with depression (39 countries) found such rates to be consistently high across countries (Thornicroft *et al.* 2009; Ucock *et al.* 2012; Lasalvia *et al.* 2013). Significant between-country variations were found for experienced discrimination, but not anticipated discrimination reported by people with schizophrenia (Thornicroft *et al.* 2009). A report on the qualitative experiences of stigma and discrimination, however, found few transnational differences (Rose *et al.* 2011).

On the other hand, some smaller studies suggest stark differences between HIC and LAMIC settings, e.g., studies from China (Chung & Wong, 2004) and India (Koschorke *et al.* 2014), with rates of experienced discrimination much lower than those commonly reported from HIC studies, and qualitative differences in the meaning and appraisal of the experiences made. At first sight, this appears to support the findings of early cross-cultural research on stigma suggesting that the stigma of mental illness may be less marked in non-industrialised societies due to a more supportive environment with more social cohesion and therefore less risk of prolonged rejection, isolation, segregation and institutionalisation (Askenasy, 1974; Cooper & Sartorius, 1977; El-Islam, 1979; Waxler, 1979) cited in (Littlewood, 1998) The better prognosis of schizophrenia found in international studies by the World Health Organization (WHO, 1979; Jablensky *et al.* 1992; Harrison *et al.* 2001; Hopper *et al.* 2007) has therefore commonly been attributed to less stigmatisation in LAMIC (Rosen, 2003).

However, contradicting this, there is now a considerable body of evidence documenting that in many LAMIC settings, experiences of stigma, discrimination and human rights abuses due to mental illness are common and severe (Phillips *et al.* 2002; Thara *et al.* 2003; Murthy, 2005; Lee *et al.* 2005; Botha *et al.* 2006; Lee *et al.* 2006; Lauber & Rossler, 2007; Alonso *et al.* 2009; Barke *et al.* 2011; Drew *et al.* 2011; Sorsdahl *et al.* 2012; Lasalvia *et al.* 2013). One international study using population-wide data from 16 countries found even higher rates of reported stigma among people with mental disorders in developing (31.2%) than in developed (20%) countries (Alonso *et al.* 2008).

In sum, our understanding of global patterns of stigma and discrimination is still rather limited, and further high-quality cross-cultural research is needed to throw light on the forces that drive inter-cultural differences in the manifestation of stigma. Given that there is emerging evidence that not all aspects of stigma and discrimination may be equally subject to cross-cultural variation (Koschorke *et al.* 2014), such research should take into account a range of forms of stigma and discrimination and their context-specific burden and meanings, in order to inform the development of context-specific anti-stigma interventions.

#### *Measurement of stigma and discrimination*

The creation and validation of instruments to measure stigma and discrimination against people with mental illness have been underway since the 1960s. Although early scales such as the Opinions About Mental Illness Scale (Cohen & Struening, 1962; Link *et al.* 2004) and the Community Attitudes Towards the Mentally Ill (Taylor & Dear, 1981) are still used in some studies, there have been many developments in both the breadth and quantity of measures to assess stigma, reflecting the growing interest in the field (Evans-Lacko *et al.* 2014), incorporation of a wider range of perspectives (especially that of service users and carers (Lee *et al.* 2005; Henderson *et al.* 2014b), and the changing aims and targets of anti-stigma interventions. Nevertheless, studies which include measures developed or validated in LAMICs and/or non-Western European cultures are still rare and only a few include a component focused on stigma which was developed specifically in a LAMIC country and/or non-Western European cultural setting (Thorncroft *et al.*, in press). A recent systematic review (Yang *et al.* 2014) assessed studies of stigma in non-Western European cultural groups and found that 77% identified studies assessed stigma using an adaptation of an existing measure which was developed in Western European countries. Moreover, only 2% studies used stigma measures which were derived within a non-Western European

cultural group. Even among identified research studies which used a qualitative research methodology, 82% applied generic qualitative approaches which tended to be inductive and which did not incorporate a theoretical framework of stigma.

We know from a growing body of research that stigma and discrimination against people with mental illness is an issue which persists across countries and cultures. Variations in the manifestation of stigma and hence, the 'cultural validity' of stigma indicators suggest that measurement of stigma-related constructs also requires local adaptation (Weiss *et al.* 2001). Although applying a proper translation and incorporating appropriate language or relevant idioms are important for comprehensibility and understanding of questions, forward and back translation of an instrument is not sufficient to address the 'cultural validity' of stigma concepts. There may be important differences in: the nature of stigma, what is stigmatised and how it is stigmatised (Weiss *et al.* 2001) according to different population subgroups. Thus, local cultural adaptation of an instrument may require consideration of a variety of factors including, for instance, geographic region, race, ethnicity, nationality, social class, or other factors which might influence language, beliefs and experiences. All of these are critical considerations for measurement as they also relate to the consequences of stigma and potential targets of anti-stigma interventions.

Currently, there are two approaches which are mainly used when developing culture-specific measures (Yang *et al.* 2014). In the first instance, an instrument which was developed in a HIC is translated and then psychometrically validated in a new subpopulation, potentially with some slight adaptations. The second involves the development of a 'composite measure' which incorporates experiences which were assessed across a range of contexts and/or cultures. As outlined above, Yang *et al.* have recently proposed a third approach, that is incorporating a 'what matters most' perspective (Yang *et al.* 2013; Yang *et al.* 2014). This approach would require investigating and operationalising everyday activities which are significant in participants' lives and which play a role in shaping stigma and/or have consequences for the stigmatised person.

In addition to the issue around cultural adaptation of measurement tools, there are other gaps in what can be assessed using available measures. These include a lack of indicators for structural stigma and which measure stigmatising behaviour, targeted or tailored measures for specific subgroups and use of unvalidated measures. Future efforts should continue to address these gaps, with a particular emphasis in LAMIC countries where literature is sparse, as measurement and evaluation are critical to understand

the underlying mechanisms and effectiveness of anti-stigma interventions.

### ***Evidence of interventions to reduce stigma and discrimination***

#### *Evidence from qualitative studies and the grey literature*

Most studies analysing the outcomes of interventions addressing mental health stigma are quantitative (Thornicroft *et al.* in press). Within the limited qualitative literature, even fewer studies are carried out in LAMICs (Thornicroft *et al.* in press). A recent systematic review appraising the global evidence for effective interventions to change mental health stigma revealed a single randomised controlled trial (RCT), with qualitative outcomes, carried out over several countries, including some LAMICs (Wasserman *et al.* 2012). 'Regarding interventions related to knowledge rather than attitudes or behaviour/discrimination' (Thornicroft *et al.* 2007), this project was an educational awareness programme and it was developed to meet the mental health needs of adolescents using a mixture of learning modalities. Coordinators within their respective sites answered a semi-structured questionnaire, the responses of which were later analysed and grouped into themes by two independent assessors. Although the intervention was successful in promoting discussion of certain mental health-related topics and encouraging social support networks between students, the weaknesses of the programme were due to the lack of flexibility of the RCT design and the burden on schools delivering the programme.

The use of mass media as a portal for raising awareness has shown positive effects in a number of HICs, including Australia, Canada, New Zealand and the UK (Sartorius & Schulze, 2005). From considering the grey literature (see Table 1), within LAMICs various forms of media have been utilised. In India, as part of the anti-stigma campaign, a group of artists performed a 'Street play' in various locations to increase mental health awareness among the public (Table 1). In Egypt, a study by Khairy *et al.* (2012) evaluating the potential benefits of a mass media campaign concluded that it was somewhat successful in changing attitudes and behaviours of participants that had been exposed to the televised educational clips. However, when changes in attitudes and behaviours were compared between those that had been exposed to the campaign and those that had not, no statistically significant differences emerged (Khairy *et al.* 2012).

Such interventions in LAMICs have had varying degrees of geographical and governmental involvement. Most interventions, such as those of the Mental Health Foundation in Nigeria and the Kintampo

project in Ghana are at a national level. Others, such as the Minds Foundation in India, work regionally to improve mental health literacy through educational workshops within rural communities. Some countries i.e., Liberia and Morocco have demonstrated anti-stigma policies within national policy papers. In Liberia the anti-stigma campaigns aim to promote the rights and needs of those with mental illness through advocacy.

Although many interventions are descriptive, a selected few systematically evaluated the effectiveness using project outcomes (Thornicroft *et al.* in press). Additionally, a limited number are published in peer reviewed journals or reports (Kakuma *et al.* 2010). Only one study in Jamaica found positive changes in attitudes following the deinstitutionalisation and integration of mental health into primary healthcare (Table 1). The Minds Foundation in India, lacking formal evaluation, however does state that questionnaires have shown an improvement in attitudes towards those with mental health disorders. In overview, there are few stigma-related intervention studies in LAMICs, they tend to be small, they are methodologically rather diverse and do not allow combined interpretation, and there are no cost-effectiveness analyses of these interventions.

#### *Evidence from quantitative studies*

Related to suicide prevention, there is some evidence that specific training programmes may be effective in improving knowledge and attitudes among primary care staff, as shown in an interventions study in Campinas in Brazil (Da Silva Cais *et al.* 2011). More generally, despite the scarcity of evidence for anti-stigma interventions from LAMICs, there is some emerging evidence from a few countries of interventions that do show promise of being effective. Several projects are now recognising the importance of including ways to address stigma and discrimination within their programme of work. The 'Emerging mental health systems in LAMICs' (EMERALD) programme (see [www.emerald-project.eu](http://www.emerald-project.eu)), for instance, which aims to improve mental health outcomes by generating evidence and capacity to enhance health system performance in six African and Asian LAMICs (Ethiopia, India, Nepal, Nigeria, South Africa and Uganda), is an example of how stigma elements can be incorporated into larger programmes of work. Within its 5-year programme, EMERALD is addressing stigma as one of the key barriers for access to and successful delivery of mental health services in LAMICs. The programme is generating evidence on how best to address stigma in LAMICs through a range of approaches, which includes maximising

**Table 1.** LAMIC stigma studies identified by search of grey literature

AFRICA	Language used for search	Type	Intervention level	Conditions focused on	Description	Outcomes reported	Reference/web link
Nigeria (LMI)	English	Leaflet	Nationwide	All mental illness	Mental Health Foundation, based in Lagos, aims to 'create awareness on the state of mental health of our people' and rehabilitate the mentally ill	None	<a href="http://www.mentalhealthnigeria.org/m/fight.pdf">http://www.mentalhealthnigeria.org/m/fight.pdf</a>
Liberia (LI)	English	Leaflet	Nationwide	All mental illness	Mental Health Program, Carter Centre, USA, aim to produce nationwide anti-stigma campaigns 'to improve public understanding of mental illnesses'	None	<a href="http://www.cartercenter.org/resources/pdfs/factsheets/mental-health-liberia-facts.pdf">http://www.cartercenter.org/resources/pdfs/factsheets/mental-health-liberia-facts.pdf</a>
		Report	Nationwide	All mental illness	Anti-stigma campaigns are mentioned within the national mental health policy paper. 'The Ministry of Health, through its advocacy program, will seek to promote the rights and needs of those with mental illnesses and to reduce the stigma associated with it. All levels of advocacy will be encouraged and supported utilising all human resources, organizations and groupings	None	<a href="http://www.mghglobalpsychiatry.org/our-work/Executive%20Summary%20Liberia%20NMHP.pdf">http://www.mghglobalpsychiatry.org/our-work/Executive%20Summary%20Liberia%20NMHP.pdf</a>
Egypt (LMI)	English	Newsletter	Nationwide	All mental illness	Psychological Health and Awareness Society in Egypt (PHASE) is launching a 'Psychological health awareness campaign to foster anti-stigma against mental health and to create acceptance for psychologically affected people in the society'	None	<a href="http://ephase.org/files/newsletters/newsletter2012_2.pdf">http://ephase.org/files/newsletters/newsletter2012_2.pdf</a>

			Conference booklet	Region of several Arab nations	All mental illness	Egyptian Psychiatric Association hosting the Arab Federation of Psychiatrists. Conference theme: 'Fighting stigma and discrimination because of mental disorders' (2008)	None	<a href="http://www.arabpsynet.com/congress/Cong.J18PanArabPsyEgypt.pdf">http://www.arabpsynet.com/congress/Cong.J18PanArabPsyEgypt.pdf</a>
			Journal article	Nationwide	All mental illness	Impact of first national media campaign against the stigma of mental illness. A total of 2274 participants took part in this study which included questionnaires and interviews of exposed and unexposed participants. The media campaign consisted of two televised education clips lasting 2 min each	Anti-stigma campaign led to changes in attitudes of participants, results could have been generalised had outcomes been clearly identified using pre- and post-exposure assessments.	Khairy <i>et al.</i> (2012)
South Africa (UMI)	English		Webpage	Nationwide	All mental illness	Mental Health Media Awards 'to acknowledge the crucial role of the media in raising public awareness about mental health and illness.' The Mental Health Information Centre of South Africa (MHIC). MHIC also produces a range of resources to tackle stigma and improve knowledge of mental illness	None	<a href="http://www.mentalhealthsa.co.za">http://www.mentalhealthsa.co.za</a>
			Leaflet	Nationwide	Bipolar disorder	Leaflet to help people with bipolar disorder tackle stigma. South African Depression and Anxiety Group	None	<a href="http://www.sadag.co.za">http://www.sadag.co.za</a>
			Webpage	Nationwide	All mental illness	Central Gauteng Mental health Society: Vision: 'Changing attitudes, changing lives'. Mission: to reduce prejudice and misunderstanding regarding mental disability	None	<a href="http://www.cgmhs.co.za/">http://www.cgmhs.co.za/</a>

*Continued*

Table 1. Continued

AFRICA	Language used for search	Type	Intervention level	Conditions focused on	Description	Outcomes reported	Reference/web link
		Information pack	Nationwide	All mental illness	Mental Illness Awareness month organised by the South African Federation for Mental Health	None	<a href="http://safmh.org.za/Images/understandingMentalIllness.pdf">safmh.org.za/Images/understandingMentalIllness.pdf</a>
Tanzania (LI)	English	Annual report	Regional	All mental illness	Arusha Mental Health Trust: provision of a resource centre. A goal of the trust is to reduce stigma	None	<a href="http://amht.co.tz/wp-content/uploads/2011/.../Annual-Report-Final-2011.pdf">amht.co.tz/wp-content/uploads/2011/.../Annual-Report-Final-2011.pdf</a>
Uganda (LI)	English	Webpage	Nationwide	All mental illness	Kellerman Foundation: provision of community based mental health rehabilitation with the goal of 'not only bring the much needed service closer to the people but also demystify mental illness and associated stigma'	None	<a href="http://www.KellermannFoundation.org">http://www.KellermannFoundation.org</a>
		Newsletter	Nationwide	All mental illness	The Mental Health beyond Facilities (mhBeF) project is to develop and deliver evidence based Comprehensive Community-Based Mental Health Service (CCMHS) consistent with WHO Mental Health Gap Action Programme (mhGAP). The programme provides clinical care, peer to peer and livelihood support and anti-stigma interventions	Proposed evaluation of project outcomes using a cohort study design comparing the group at baseline and 18 months after implementation	<a href="http://www.musph.com/~musph/images/pdfs/News_Letters/Maksph_NewsletterJan-March-2013-vol.3_no.3.pdf">http://www.musph.com/~musph/images/pdfs/News_Letters/Maksph_NewsletterJan-March-2013-vol.3_no.3.pdf</a>
Ghana (LMI)	English	Webpage	Nationwide	All mental illness	The Kintampo Project: training community mental health officers to 'detect mental illness in the community, educating local people about mental health and reducing stigma and discrimination'	None	<a href="http://www.thekintampoject.org">http://www.thekintampoject.org</a>

Morocco (LMI)	French/English	Information sheet	Nationwide	All mental illness	Policy from the Ministry of Health in order to reduce stigmatisation of patients suffering from mental disorders	None	<a href="http://srvweb.sante.gov.ma/revuepresse/dossiersante/Documents/Sante%20mentale.pdf">http://srvweb.sante.gov.ma/revuepresse/dossiersante/Documents/Sante%20mentale.pdf</a>
Latin America Brazil (UMI)	Portuguese/English	Article/ Webpage	Nationwide	Schizophrenia	Challenging the stigma of schizophrenia: 'Projecto S.O. eSq' & ABRE project, part of 'Open the Doors' global project fighting stigma of schizophrenia	None	Villares & Sartorius (2003) & <a href="http://www.abrebrasil.org.br/web/index.php/esquizofrenia/estigma">http://www.abrebrasil.org.br/web/index.php/esquizofrenia/estigma</a>
	Portuguese	Webpage	Nationwide	All mental illness	Rede de Associações de Saúde Mental	None	<a href="http://www.redesm.org.br">http://www.redesm.org.br</a>
Argentina (UMI)	Spanish/English	Report of experimental study	Small scale in two centres	Mental disability	Contest: best proposal of a plan of action against stigma in mental illness. Project CICN –CN (New Home in a New World). Model of integrating young people with mentally disabled people through a series of group activities	Attitudes towards mental disability changed in a positive direction among the participants	Proyecto CICN-CN "Casa Nueva en un Nuevo Mundo"
Jamaica (UMI)	English	Journal article	20 focus groups nationwide	All mental illness	Deinstitutionalisation and attitudes toward mental illness in Jamaica: a qualitative study. Aim was to consider whether or not deinstitutionalisation and the integration of community mental health care with primary health care services have reduced stigma toward mental illness in Jamaica	Participant narratives showed that stigma had transitioned from negative to positive, as community mental health services were integrated	Rev Panam Salud Publica. 2011Mar;29(3), 169–176
ASIA India (LMI)	Hindi/English	Webpage	Nationwide	Schizophrenia	Schizophrenia Research Foundation (SCARF), running an anti-stigma programme part of the World Psychiatric Association	None	<a href="http://www.scarfindia.org/awareness.html">http://www.scarfindia.org/awareness.html</a>

*Continued*

Table 1. Continued

AFRICA	Language used for search	Type	Intervention level	Conditions focused on	Description	Outcomes reported	Reference/web link
	English	Webpage	Regional	All mental illness	Minds foundation focuses on delivering high-quality, cost-effective mental healthcare to rural India. By increasing mental health literacy through educational workshops, it aims to change stigmatising attitudes and behaviours to those with mental disorder	Questionnaires suggested that attitudes towards mental disability improved after educational workshops	<a href="http://www.mindsfoundation.org/">http://www.mindsfoundation.org/</a>
	English	Report	Regional	All mental illness	Both programmes fall under the district mental health programme (Thiruvananthapuram) initially started in Kerala but now active within several states in India. The Information, Education and Communication (IEC) project provides care for caregivers of those suffering from mental illness and through this partnership aims to reduce stigmatisation of the mentally ill. Street play is a new anti-stigma campaign to create mental health awareness among the public through street play	None	<a href="http://dhs.kerala.gov.in/docs/ar040912.pdf">http://dhs.kerala.gov.in/docs/ar040912.pdf</a>
Bangladesh (LI)	English	Report	Nationwide	All mental illness	Bangladesh Clinical Psychology Society (BCPS): One principal strategy is 'using mass media to reduce the stigma on mental health'	None	<a href="http://bcps.org.bd/reports_docs/2.Strategic%20Plan.pdf">http://bcps.org.bd/reports_docs/2.Strategic%20Plan.pdf</a>

Philippines (LMI)	English	Online publication	Nationwide	All mental illness	Focus on Mental Health, the official publication of the Philippine Mental Health Association, Vol. 51 (2), Section on Defeating Mental Health Stigma	None	<a href="http://www.pmha.org.ph/downloads/newsletter-focus-pmha.pdf">http://www.pmha.org.ph/downloads/newsletter-focus-pmha.pdf</a>
Eastern Europe Russia (UMI)	Russian/ English	Newsletter	Nationwide	All mental illness	Newsletter 'Catherine' for those who have experienced mental illness	None	<a href="http://www.pandepress.ru/archiv_kat.htm">http://www.pandepress.ru/archiv_kat.htm</a>
		Booklet	Nationwide	All mental illness	3rd Young Psychiatrists (YP) Network Meeting 'Stigma from the YP's perspective: hopes and challenges'	None	<a href="http://ypsnet.org/docs/pdf/booklet_3ypnm.pdf">http://ypsnet.org/docs/pdf/booklet_3ypnm.pdf</a>
Ukraine (LMI)	Russian/ English	Journal article	Nationwide	Borderline mental disorder	Opportunities of telemedicine technologies for reducing and preventing stigma	None	Bero MP <i>et al.</i> (2010). Telemedicine in destigmatization of patients with borderline mental disorder. 8(1), 18–21

Key: country income categories are: LI, low income; LMI, lower middle income; UMI, upper middle income.

Note: Other countries searched, but without any relevant findings, include the following: (English language) – Ethiopia, Algeria, Sudan, Mozambique, Madagascar, Ivory Coast, Cameroon, Burkina Faso, Niger, Mali, Belize, Indonesia, Pakistan, Bangladesh, Philippines, Vietnam, Iran, Thailand, Myanmar, Iraq, Malaysia, Uzbekistan, Saudi Arabia, Nepal, Afghanistan, Yemen, Sri Lanka. (Spanish and English language) – Colombia, Peru, Venezuela, Chile, Ecuador, Guatemala, Cuba, Bolivia, Dominican Republic, Honduras, Paraguay, El Salvador, Nicaragua, Costa Rica, Panama, Uruguay. (French language) – Benin, Burundi, Central African Republic, Cameroon, Chad, Comoros, Democratic Republic of Congo, Guinea, Haiti, Madagascar, Mali, Niger, Togo, Congo, Côte d'Ivoire, Djibouti, Morocco, Sao Tome & Principe, Senegal, Vanuatu, Algeria, Gabon, Lebanon, Mauritius, Seychelles, Tunisia, Rwanda, Mauritania.

service user and caregiver involvement within the programme to promote their inclusion and to reduce stigma and discrimination; garnering lessons on how best to reduce stigma in LAMICs through key informant interviews with relevant stakeholder groups (including service users and caregivers), as well as policy-makers, health planners, health staff and other relevant groups.

Research projects in other LAMICs are incorporating stigma-related elements into either more targeted or into larger programmes of work. As an example of the former is an RCT in China which assessed knowledge and attitudes of medical students towards people with depression, and which showed that didactic teaching and self-directed learning were shown to be superior than didactic teaching alone (Rong *et al.* 2011). Another mental health staff orientated study conducted an RCT of an internet-based intervention for trainee and trained psychiatrists in Turkey, and found improved attitudes towards people with mental illness for those receiving the web-based intervention (Bayar *et al.* 2009).

## Discussion

This paper sets the scene and provides out the evidence which leads to the following key conclusions. Stigma and discrimination have been identified as major negative forces against full citizenship and social participation everywhere that they have been assessed. The local manifestations of stigma to some extent depend upon the social and cultural context of those affected. The force of research findings from HICs is that the most effective interventions to reduce stigma among adults is social contact between people with and without experience of mental illness (Thornicroft *et al.* 2015), while for young people education interventions have been shown to be most effective (Corrigan *et al.* 2012). There is insufficient evidence at present to know which overall types of intervention may be effective and feasible and in LAMICs, how best to target key groups such as healthcare staff (Henderson *et al.* 2014a), and how far they may need to be locally customised to be acceptable for large-scale use in these settings. Generating information about effective interventions to reduce stigma and discrimination in LAMICs is now an important mental health priority worldwide.

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## Conflict of Interest

The authors declare no conflicts of interest.

## Ethical Standard

The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committees on human experimentation and with the Helsinki Declaration of 1975, as revised in 2008.

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