Training for mental health professionals in responding to experienced and anticipated mental health related discrimination (READ-MH): protocol for an international multisite feasibility study

Claire Henderson (claire.1.henderson@kcl.ac.uk)
King's College London Institute of Psychiatry Psychology and Neuroscience
https://orcid.org/0000-0002-6998-5659

Uta Ouali
Razi University

Ioannis Bakolis
King's College London Institute of Psychiatry Psychology and Neuroscience

Nada Berbeche
University of Tunis: Universite de Tunis

Kalpana Bhattarai
TPO Nepal: Transcultural Psychosocial Organization Nepal

Elaine Brohan
King's College London Institute of Psychiatry Psychology and Neuroscience

Anish Cherian
NIMHANS: National Institute of Mental Health and Neuro Sciences

Eshetu Girma
Addis Ababa University

Petra C Gronholm
King's College London Institute of Psychiatry Psychology and Neuroscience

Dristy Gurung
TPO Nepal: Transcultural Psychosocial Organization Nepal

Charlotte Hanlon
King's College London Institute of Psychiatry Psychology and Neuroscience

Sudha Kallakuri
The George Institute for Global Health

Amanpreet Kaur
The George Institute for Global Health

Bezawit Ketema
Addis Ababa University School of Public Health

Heidi Lempp
Study Protocol

**Keywords:** stigma, discrimination, training, health professionals, mental health care, objective structured clinical examination, health advocacy

**Posted Date:** March 28th, 2022

**DOI:** https://doi.org/10.21203/rs.3.rs-1466318/v1

**License:** This work is licensed under a Creative Commons Attribution 4.0 International License. Read Full License
Training for mental health professionals in responding to experienced and anticipated mental health related discrimination (READ-MH): protocol for an international multisite feasibility study

Claire Henderson*, Uta Ouali, Ioannis Bakolis, Nada Berbeche, Kalpana Bhattarai, Elaine Brohan, Anish Cherian, Eshetu Girma, Petra C Gronholm, Dristy Gurung, Charlotte Hanlon, Sudha Kallakuri, Amanpreet Kaur, Bezawit Ketema, Heidi Lempp, Jie Li, Santosh Loganathan, Pallab K. Maulik, Gurucharan Mendon, Tesfahun Mulatu, Ning Ma, Renee Romeo, Rahul Kodihalli Venkatesh, Yosra Zgueb, Wufang Zhang, Graham Thornicroft.

* Correspondence claire.1.henderson@kcl.ac.uk

Health Services and Population Research Department, David Goldberg Centre, King’s College London Institute of Psychiatry, Psychology and Neuroscience, De Crespigny Park, London SE5 8AF.

Abstract

Background

Mental health and other health professionals working in mental health care may contribute to the experiences of stigma and discrimination among mental health service users, but can also help reduce the impact of stigma on service users. However the few studies of interventions to equip such professionals to be anti-stigma agents those took place in High-Income Countries. This study assesses the feasibility, potential effectiveness and costs of Responding to Experienced and Anticipated Discrimination training for health professionals working in mental health care (READ-MH) across Low- and Middle-Income Countries (LMICs).
Methods: This is an uncontrolled pre-post mixed methods feasibility study of READ-MH training at seven sites across five LMICs (China, Ethiopia, India, Nepal, and Tunisia). Outcome measures: knowledge based on course content; attitudes to working to address the impact of stigma on service users; and skills in responding constructively to service users’ reports of discrimination. The training draws upon the evidence bases for stigma reduction, health advocacy and medical education and is tailored to sites through situational analyses. Its content, delivery methods and intensity were agreed through a consensus exercise with site research teams. READ-MH will be delivered to health professionals working in mental health care immediately after baseline data collection; outcome measures will be collected post-training and three months post-baseline, followed by qualitative data collection. Fidelity will be rated during delivery of READ-MH, and data on training costs will be collected. Quantitative data will be assessed using generalised linear mixed models. Qualitative data will be evaluated by thematic analysis to identify feedback about the training methods and content, including the implementability of the knowledge and skills learned. Pooled and site-specific training costs per trainee and per session will be reported.

Conclusions

The training development used a participatory and contextualized approach. Evaluation design strengths include the diversity of settings; the use of mixed methods; the use of a skills-based measure; and knowledge and attitude measures aligned to the target population and training. Limitations are the uncertain generalisability of skills performance to routine care, and the impact of COVID-19 restrictions at several sites limiting qualitative data collection for situational analyses.

Keywords: stigma, discrimination, training, health professionals, mental health care, objective structured clinical examination, health advocacy
Background

In 1998, The Lancet published an essay by Norman Sartorius, then President of the World Psychiatric Association, entitled ‘Stigma: what can psychiatrists do about it?’ (Sartorius, 1998). Focusing particularly on schizophrenia, he recommended that psychiatrists: 1) expand the focus of clinical work beyond symptom reduction to improving quality of life; 2) reflect on and try to improve their own attitudes by updating their clinical knowledge and learning from those using their services and their families about the impact of the illness and of stigma on them; 3) monitor for discrimination and expand their role to include advocacy; and 4) learn from others about how stigma and discrimination can be reduced.

Over twenty years later, it is now timely to consider progress against these recommendations. Outcomes other than clinical ones are increasingly used in research and routine practice, and the concept of personal recovery has had considerable impact on mental health policy and practice in many countries (Le Boutillier et al., 2011). Further, continuing professional development is included in the requirements for license renewals and revalidation for many professionals. Reflective practice is used extensively in undergraduate and postgraduate training (Schutz, 2007) which in theory provides scope for examining one’s own attitudes to people with mental illness. While the extent to which this occurs is unknown, stigma among health professionals, including mental health professionals is an increasing focus of research (Henderson et al., 2014).

Although mental health professionals have more knowledge of mental illness compared to health professionals of other specialties, they are nevertheless exposed to negative cultural stereotypes prior to professional education (Schulze, 2007). Indeed they differ little from the general population in terms of desire for social distance, but consistently show less socially restrictive attitudes (except regarding
coercion into treatment) and are more supportive of the civil rights of people with mental illness (Lauber, Anthony, Ajdacic-Gross, & Rössler, 2004; Magliano et al., 2004; Vibha, Saddichha, & Kumar, 2008).

The frequency of discriminatory behaviours reported by service users in mental health care settings ranges from 16% to 44% (Gabbidon et al., 2014; C. Thornicroft, Wyllie, Thornicroft, & Mehta, 2014). Qualitative research in England found that service users described a lack of support and a tendency towards overprotectiveness by mental health service providers (Hamilton et al., 2016), while in Mexico service users described cold and distant treatment and a lack of clear explanations provided by psychiatrists, a focus on psychopathology/medication and lack of interest in their personal history (Lagunes-Cordoba et al., 2021). By means of their particular relationship with the service user, mental health care professionals can contribute to exacerbating or mitigating self-stigma (Wang, Link, Corrigan, Davidson, & Flanagan, 2018). This form of stigma encompasses negative beliefs about the self, based on shame, the acceptance of mental illness stereotypes, a sense of alienation from others, and consequent low self-esteem and mood. It prevents people from seeking healthcare, employment and social opportunities (Corrigan & Angermeyer, 2012).

However, less stigmatisation of patients by more experienced mental health professionals was observed in several surveys (Jorm, Korten, Jacomb, Christensen, & Henderson, 1999; Lauber, Nordt, Braunschweig, & Rossler, 2006; Linden & Kavanagh, 2012). This may be attributed to a better capacity to preventing burnout and the loss of empathy associated with burnout, more observations of personal recovery in patients, more personal or family experience of mental illness, and/or more experience in overriding stereotypes (Henderson et al., 2014).
While the evidence above suggests mental health professionals as a target for a stigma reduction intervention, any such intervention need also to take into consideration the mental health professionals’ potential role as an anti-stigma change agent (Deb et al., 2019). Previous articles have acknowledged the potential impact that physicians’ advocacy could have in reducing discrimination (Arboleda-Flórez & Stuart, 2012; Thornicroft et al., 2010; Ungar et al., 2016), agreeing professionals could champion anti-stigma efforts, including much needed structural changes as health care quality improvement and policy change. The extent to which stigma reduces mental health professionals’ ability to provide effective care is obvious to them and can contribute to burnout and demotivation.

At a policy and service level, stigma contributes to restrictive mental health legislations, the poor coverage of mental health education in university curricula for health professionals, unequal allocation of health resources with low budgets attributed to mental health care compared to physical health care resulting in poor mental health care resources (Saxena, Thornicroft, Knapp, & Whiteford, 2007), in over-reliance on institutional care, and in limited access to physical health care (Perry, Lawrence, & Henderson, 2020). Mental health professionals notice service users’ barriers to seeking and engaging with treatment, obstacles to rehabilitation due to discrimination in employment and within social networks, reluctance to pursue economic and social opportunities due to the anticipation of discrimination, and negative self-evaluation due to internalised stigma (Zaske, Freimuller, Wolwer, & Gaebel, 2014) However, there is little evidence that advocacy and effective stigma reduction methods have been incorporated into the role of psychiatrists or other mental health professionals, based on reviews of stigma reduction interventions (Mehta et al., 2015; G. Thornicroft et al., 2016). As a result, how anti-stigma advocacy can be incorporated by mental health professionals is not yet clear. We therefore need to return to Sartorius’s recommendation to learn from others.
In other fields of medicine and especially that of primary care, there is an increasing focus on physicians’ social accountability and advocacy. Across North America, for example, several organizations have expressed a pressing need for advocacy training in medical education (ACGME, 2007; Frank et al., 2015; Shaws et al., 2017). The Royal College of Physicians and Surgeons of Canada published a CanMEDS Physician Competency Framework, introducing health advocacy as one of six main competencies which medical education programs need to address (CanMEDS: Better Standards, Better Physicians, Better Care, 2011). The role of health advocate is understood as the skill to “determine and understand needs, speak on behalf of others when required, and support the mobilization of resources to effect change” (Frank, 2015). The CanMEDS competencies have been adopted in a number of other countries including an adaptation to the Ethiopian context (EthioMEDS) for psychiatry training (Alem, Pain, Araya, & Hodges, 2010), where psychiatrists are likely to be called upon to develop policy, services, training and to join with service users to advocate for better services. However, there is a need to introduce the concept of anti-stigma agency to other cadres and to combine it with stigma reduction.

A recent systematic review (Guerrero) of the feasibility and effectiveness of training in health advocacy, anti-stigma competency or related skills for health professionals retrieved 39 studies, three of which reported interventions for mental health care professionals (Griffith & Kohrt, 2016; Li et al., 2019; Sheely-Moore & Kooymen, 2011; Zaske et al., 2014). Program content varied widely; some covered mainly interpersonal stigma reduction, others focusing on social determinants of health, and some included health advocacy at the structural level. The authors found some evidence for their effectiveness, however, it proved difficult to compare effectiveness across programmes given the wide variety in content, duration, teaching methods and outcome measures. The majority of studies were carried out in High Income Countries (HICs), therefore it is difficult to extrapolate feasibility to Low- and
Middle-Income Countries (LMICs) where the mix of professionals and hence the roles they carry out is often different to that of HICs. The authors conclude that to maximise its relevance to the communities served, any intervention for mental healthcare professionals needs to: link to the professionals’ roles; be developed following a situational analysis; and include local people with lived experience of mental health related stigma in the delivery (Experts by Experience). Training needs to use interactive delivery methods and initial piloting; and evaluation should examine behavioural change.

We therefore designed Responding to Experienced and Anticipated Discrimination training for health professionals working in mental health services (READ-MH). These may be mental health professionals or health professionals who do not have professional training in mental health but are working in mental health services. Further, our target service setting is specialist mental health services rather than primary care or any other setting. READ-MH was developed based on: a previous training for medical students (Deb et al., 2019; Potts); the findings of the above review; situational analysis at the seven sites of the INDIGO Partnership programme (Gronholm) comprising desk reviews and qualitative interviews and focus groups with stakeholders on mental health related stigma; and consensus development regarding the delivery format, content and teaching methods among the INDIGO Partnership research team based on data from the studies included in the systematic reviews. The present study aims to assess the feasibility, potential effectiveness and costs of the READ-MH training at these sites.

Methods/design

This is a pre-post feasibility study at seven LMIC sites using mixed methods. READ-MH will be delivered to health professionals working in mental health care immediately after baseline data collection; the quantitative follow up data will be collected post training and at three months post baseline, followed by qualitative data collection. Fidelity will be rated during READ-MH delivery. In addition, data on the
costs of the training will be collected. There is no control group as this is not required to address aims related to feasibility, and the sample size is not designed to determine effectiveness.

Setting

All seven sites across five countries (China, Ethiopia, India, Nepal, and Tunisia) of the UK Medical Research Council funded INDIGO-Partnership research group will take part in the study. Given that sites have variable provision of mental health care and staffing, sample sizes and targeted professionals vary by site (see Table 1).
| Site               | Location for training                                                                 | Target professionals                                                                                                                                                                                                 | Target sample and size                                                                 |
|--------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Beijing, China     | Haidian, Chaoyang, Xicheng, district, Beijing                                         | Psychiatry residents, psychiatrists, psychiatric nurses, social workers working in Peking university sixth hospital and district mental health hospitals                                                          | 30 mental health professionals                                                        |
| Guangzhou, China   | Guangzhou, China                                                                     | Psychiatry Residents, Primary Health Care Providers (General Practitioners, Community Psychiatric Nurses, etc.)                                                                                                       | 20 mental health professionals                                                        |
| Ethiopia           | Sodo, South Sodo, Misrak Meskan and Meskan districts, Butajira city administration, South Central Ethiopia | Psychiatric nurses and health administrators or managers involved in co-ordinating and developing mental health care                                                                                        | A total of 28 (5 psychiatric nurses, 5 mental health co-ordinators from distri health offices, and 18 health centre heads or health centre focal persons for mental health) |
| Bengaluru, India   | NIMHANS-tertiary care center                                                          | Psychiatry residents, trainees from M.Phil. in Psychiatric Social Work/ Psychology/ M.Sc. Psychiatry nursing/staff who come in regular contact with person with mental illness (such as Instructors in Rehab departments etc.) from a tertiary care center | 24 mental health & non-mental health professionals                                     |
| Delhi (National Capital Region), India | District Hospital in Faridabad, Haryana                                               | Mental health professionals (1Psychiatrist, 1 Counsellor, 1 Psychiatric Nurse and 1 Community Nurse) from the district hospital                                                                                     | Four trained mental health professionals.                                              |
| Kathmandu, Nepal   | Pokhara, Gandaki Province                                                             | Psychiatry residents, psychiatrists, psychiatric nurses working in various private/government hospitals and medical colleges                                                                                       | 6-8 psychiatrists, residents, and psychiatric nurses                                  |
| Tunis, Tunisia     | Razi University Hospital La Manouba                                                    | Psychiatry residents, nurses working in mental health at the hospital                                                                                                                                                | 16 - 20 psychiatry residents and nurses                                                 |
Participants and Recruitment

Eligible mental health professionals or health professionals will be working currently in the mental health field at each site. A participant information sheet will be distributed by the site researchers to eligible professionals at least 24 hours before the first session, and written informed consent will be sought at the start of the first session. Individual written consent will be ensured through the availability of multiple members of the research team who will answer individual professionals’ queries. It will be made clear to professionals that non-participation will not be penalised by the professional’s supervisor.

Measures

Outcome measures

Knowledge will be assessed through a structured questionnaire in the form of a quiz based on the content of the training with input from all sites. The quiz will cover (i) knowledge about sources of stigma; (ii) the impact of stigma including in the context of health care; and (iii) how mental health professionals can reduce this impact.

Attitudes of mental health professionals to working to address the impact of stigma on service users will be measured through the ASTAD (Attitudes to addressing stigma and discrimination scale). This scale was created by rewording an existing scale, the Short Alcohol and Alcohol Problems Perception Questionnaire (SAAPPQ) (Anderson & Clement, 1987). The original SAAPPQ assesses health professionals’ attitudes to working with people with alcohol problems. It has two items contributing to each of five domains (Role adequacy, Role legitimacy, Motivation, Work satisfaction and Task-specific self-esteem) and two subscales: Role security (the sum of role Adequacy and Role legitimacy) and Therapeutic commitment (the sum of Motivation, Work Satisfaction and Task-specific Self-esteem). In
the British validation study, the SAAPPQ showed good correlation with the extent of postgraduate training in addiction and the frequency at which GPs initiated discussions about alcohol use during consultations (Anderson & Clement, 1987). By retaining the questions and changing the wording from working with people with alcohol problems to working to reduce stigma and discrimination, the ASTAD retains the structure of the SAAPPQ.

Behaviour and communication skills will be assessed through an objective structured clinical examination (OSCE). These are widely used in medical education and comprise scenarios in which the student/trainee interacts with a simulated patient in the presence of an examiner (Khan, Ramachandran, Gaunt, & Pushkar, 2013). The scenario for READ-MH comprises a simulated mental health service user reporting experienced and anticipated discrimination and who is faced with a disclosure decision regarding their mental illness, either in the context of marriage or employment. The OSCE-scenario was developed in according with the INDIGO Partnership-implementing sites to reflect typical interactions/problems of discrimination/stigma at the sites.

Participating simulated service users will be given a briefing sheet to standardise the scenario and their responses to participating professionals’ questions.

The professional will be assessed by both the simulated patient and the observer on: (i) their responses aimed to reduce the impact of stigma, including acknowledging the problem, showing an empathic attitude, exploring the patient’s concerns, and identifying important considerations to help the patient make a decision informed by their own values and relevant clinical information; (ii) stigmatising behaviours such as ignoring the simulated patient’s concerns; dismissing/not believing their report of discrimination; endorsing the discriminatory behaviour reported; attributing responses to anticipated discrimination to laziness or incompetence; or telling the patient whether to make a disclosure.
Guidance for the OSCE raters and simulated patients for their assessment will be adapted from existing communication skills OSCEs used at King’s College London; the OSCE developed for the study of READ for medical students, and from the ENhancing Assessment of Common Therapeutic factors (ENACT) therapist competence training rating scale (Kohrt et al., 2015). This guidance will be transcribed into a standardized marking scheme describing the assessment process to increase reliability and comparability across sites. Marking will reflect the formative nature of the OSCE.

**Implementation measures**

Quantitative process measures will include: (i) attendance records for participants and (ii) a fidelity checklist to record delivery of and participants’ active participation in the sessions. Items on delivery will cover the use of those evidence-based teaching methods chosen. Each item in the checklist will be scored 0= not achieved; 1= partially achieved; or 2= achieved in full, with guidance for the anchor points. Qualitative process data will include feedback on the training immediately post training, and feedback on any impact on the professionals and their practice at three months.

**Intervention**

We describe READ-MH using the TIDieR checklist (Hoffmann et al., 2014). The aims of READ-MH are to increase the ability of professionals working in mental health care to:

1) recognise their own stigma and minimise the effects on patients, carers, students and trainees in health professions, and colleagues

2) identify and respond constructively to patients' reports of and anticipated discrimination and self-stigma
3) address interpersonal discrimination and foster advocacy at the individual, family and service levels

The READ-MH manual was developed with input from each site from its inception to adapt the content and delivery to the cultural and social specificities of each site, following a cultural adaptation matrix. This matrix was established through situation analysis comprising a desk review on mental health related stigma in the region and qualitative research with local healthcare staff, service users and carers. The manual describes each module including methods of delivery (role play, facilitated group discussion, testimony from the Expert by Experience, etc.), provides a slide pack and gives specific examples of adaptation to each site. The manual also contains guidance on training and supporting the Expert by Experience, ground rules for the interaction of mental health professionals with the Expert by Experience and a safety protocol in case the Expert by Experience requires support during or after the delivery of READ-MH.

READ-MH training will be provided by research team members at each site who are themselves mental health professionals together with Experts by Experience. Delivery will be to mental health professionals in groups of no more than 12 participants. Training will be delivered in five modules, which allow for flexibility across sites: all in one time, shorter or longer duration of training (4 to 8 hours). The different modules, their respective content and teaching methods are shown in Table 2. Training will be in person unless COVID-19 restrictions require online training and internet connections are sufficiently reliable.
| Module | Module Title | Content / objectives | Teaching methods |
|--------|--------------|----------------------|------------------|
| Introduction | Introduction of participants | Introduction of Expert by Experience | Presentation |
| | | Learning objectives, module outline, course delivery methods | |
| 1 | What is stigma and how does it affect mental health care? | Description and explanation of experienced, anticipated, self-stigma and structural stigma | Interactive lecture |
| | | How stigma reduces effectiveness of mental health care | Brainstorming |
| | | | Group discussion instigated by thought experiment and supported by evidence from the site |
| | | | Testimonial from expert by experience and/or audiovisual clip |
| 2 | Experienced discrimination | How to identify and respond to experienced discrimination as mental health professional | Testimonial of expert by experience |
| | and Self-stigma | | Role play and debriefing-group discussion |
| | | How to help service users to respond to experienced discrimination | |
| | | How to develop stigma resistance in service users | |
| 3 | Anticipated discrimination and Self-stigma | How to identify and respond to anticipated discrimination as mental health professional | Testimonial of expert by experience |
| | | | Case vignette |
| | | How to help service users to overcome anticipated discrimination and self-stigma | Role play and debriefing-group discussion |
| 4 | Stigmatisation within mental health care | Structural stigma in mental health care | Interactive lecture |
| | | Experienced stigma in mental health care (perpetrated by mental health professionals) | Including quotes of stigmatising experiences from service users within the mental health system and clinical case illustrations |
| | | Factors contributing to stigma perpetrated by mental health professionals | Group discussion |
| 5 | What can we do to reduce stigma in mental health care? | Focus on stress and burnout as factors aggravating stigma; self-care for mental health professionals as a means to reduce stigma | Case study, followed by a |
| | | Communication skills | Group discussion supported by evidence from the sites |
| | | Role of advocacy | Role play |
Experts by Experience will play an important role in delivering the training. Each site research team will provide training to Experts by Experience to prepare them to give personal testimony. The training will be based on previous work at one of the sites (Rai et al., 2018) and on training for Time to Change Champions (https://www.time-to-change.org.uk/take-action/resources-champions). The contribution of the Expert by Experience to the training will include: (i) descriptions of the illness and personal recovery process; (ii) experiences of stigma and discrimination in the community and in mental health care services; and (iii) coping with stigma including with its internalization, its anticipation, and with experiences of discrimination and how they were overcome.

It is possible that Experts by Experience may find that delivering the training acts as a stressor that affects their mental health, or that a mental health professional behaves in a way they find upsetting during the training. To minimise this risk, ground rules for the mental health professionals will be established. These will include: not asking questions used for clinical assessment of the Expert by Experience’s mental state; not dismissing the expert’s experience; and not interrupting them. We will also use a safety protocol for Experts by Experience informed by the anti-stigma programme for Time to Change England to ensure they are well-supported. This will include avoidance of training sessions directly before times when support is not accessible, such as weekends; debriefing after each session; and a contact number for experts to call a clinical member of the research team if they wish to debrief at a subsequent time.

**Procedures**

**Quantitative data**

Baseline data will be collected immediately before the first training session starts (see Table 3). The OSCE will be administered first, to prevent an influence on behaviour during the OSCE of considering
responses to the knowledge quiz and ASTAD. Each OSCE will be rated by one of the trainers or another member of the research team. Afterwards, participants will be given the ASTAD and knowledge quiz for self-completion.

The fidelity checklist and attendance record will be completed by a member of the research team at each session. Immediate post training data collection will occur at the end of the training and will follow the same order as for baseline data collection. Results of the two OSCEs will be provided once all immediate post training follow up data have been collected. At three months from the baseline, participants will be given or sent the knowledge quiz and ASTAD to self-complete and return.

**Qualitative data**

At each site, all participants in each group will be invited to attend a focus group held once they complete the OSCEs and outcome assessments immediately after the training. The topic guide will cover their perceived relevance and usefulness of the training; aspects they thought worked best versus less well; parts of the training that could be improved; and barriers/facilitators to application in practice.

At three months follow up, after completion of the outcome assessments, all participants will be invited to take part in focus groups or individual interviews. The topic guide will cover any perceived impact on practice and if relevant education; barriers/facilitators to application in practice; and experiences of application to practice/education. The choice of interviews versus focus groups will be made by each site research team. Interviews and focus groups will be audio recorded and transcribed verbatim by members of the research site teams.

Table 3 gives an overview of all quantitative and qualitative assessments at the different time points.
Table 3. Measures and assessment time points

| Measure                      | Baseline | During training | Immediate follow up | 3-month follow up |
|------------------------------|----------|-----------------|---------------------|-------------------|
| Knowledge quiz               | ✓        | -               | ✓                   | ✓                 |
| ASTAD                        | ✓        | -               | ✓                   | ✓                 |
| OSCE-rater                   | ✓        | -               | ✓                   | -                 |
| OCSE-simulated patient       | ✓        | -               | ✓                   | -                 |
| Fidelity measure             | -        | ✓               | -                   | -                 |
| Qualitative feedback         | -        | -               | ✓                   | ✓                 |

**Health Economics**

An economic research question concerns costs: what is the cost to introduce READ-MH? Therefore, in this study we will examine the cost of READ-MH training, including the comparative costs of such an intervention across different geographical sites. All sites will take part in an interview designed to get a description of the training to be implemented in their site and to obtain their best estimates of the resources required. After the interview, an Excel spreadsheet will be sent to each site, requesting the relevant data to facilitate the derivation of site-specific READ-MH training costs.

Data on time spent by various individuals in training will be measured prospectively by the research teams at each site. Attendance and data on time spent at training sessions will also be measured prospectively by the research team at each site.

All costs will be collected in local currencies and converted to US$ using Purchasing Power Parity (PPP) and local currency unit (LCU) exchange rates for the most recent year. Training sessions will be costed for the trainers and Experts by Experience using per diem payments and will include preparation time for the sessions. Direct training-related expenses will be identified such as: training venue room hire, IT equipment, and training materials. These costs will be obtained retrospectively from the research team.
immediately after training. Other training-related expenses will cover: accommodation, travel and subsistence for trainers and Experts by Experience if not included in the stipend; translators and subsistence for translators; trainee stipend and subsistence for trainees if not covered in the stipend; driver time payment; petrol/diesel; refreshments and catering expenses for the trainee and any other person accompanying the trainer or the trainee to assist with child care.

Data analysis

Quantitative data will be assessed using generalised linear mixed models depending on the distribution of the outcome (continuous, binary). Descriptive statistics of quantitative outcome data (OSCE score, ASTAD, knowledge quiz) will be provided. The impact of the training on outcome measures will be analysed comparing the OSCE scores, ASTAD and knowledge quiz at baseline, post-training and 3 months post training. A three-level hierarchical model will be employed and all time points will be included as repeated measures in the model to improve power and account for clustering of observations at site levels.

Qualitative data will be analysed by thematic analysis (Braun & Clarke, 2006) of the interview and focus group transcripts using NVivo qualitative computer software. Coding and translation of illustrative accounts will be undertaken by research staff fluent in the language of the transcript and English so that a coding framework in English based on data from all sites can be created. A combined deductive and inductive approach will be applied to identify and compare themes across sites in terms of responses to the training methods and content, including the implementability of the knowledge and skills learned including barriers encountered.
For health economics analysis, the training cost will be summed and weighted by the number of individuals trained and the number of training sessions to derive a total cost per trainee and a total cost per session. Pooled and site-specific training costs will be reported. We will describe the total and component training costs presenting median, mean, standard deviations, and ranges.

One way sensitivity analyses will be undertaken to explore the sensitivity of the results to changes in assumptions.

**Discussion** This study has several strengths in terms of the intervention and evaluation designs. The training draws upon the evidence bases for stigma reduction, health advocacy and medical education. In addition, the training is tailored from the outset to each site through the selection of locally relevant data from the situational analyses. Further, the content, delivery methods and intensity of the training have been agreed through a consensus exercise with site research teams to enhance feasibility.

Strengths of the evaluation design include the diversity of settings, improving generalisability of the results; the use of a mixed methods design; the use of a behavioural outcome measure in the form of the OSCE; and the use of knowledge and attitude measures appropriate for the target population and the training. Key limitations are the uncertain generalisability of OSCE performance to routine care, and our inability to assess effectiveness or cost-effectiveness in relation to patient outcomes at this stage. Finally, the existence of COVID-19 restrictions at several sites limited the extent of qualitative data collection for the situational analyses to inform the development of READ-MH.

**Abbreviations**

ASTAD: Attitudes to addressing stigma and discrimination scale
OSCE: Objective Structured Clinical Examination

READ-MH: Responding to Experienced and Anticipated Discrimination

**Stage of study:** Intervention adaptation by sites.

**Related Articles:** No publications containing the results of this study have already been published or submitted to any journal.

**Ethics approval and consent to participate:** Approval for this study was granted on 21st July 2020 by the King’s College London Psychiatry, Nursing and Midwifery Research Ethics Subcommittee as a component of the International Study of Discrimination and Stigma Outcomes (INDIGO): Indigo Partnership Research Programme - Phase 2: intervention work Project Reference:HR-19/20-17252. Site approvals were given as follows:

- IRB, The Affiliated Brain Hospital of Guangzhou Medical 19th October 2020
- Addis Ababa University College of Health Sciences IRB, 2nd October 2019
- The George Institute Ethics Committee, The George Institute for Global Health, 4th September 2020
- Nepal Health Research Council, 29th July 2021
- Ethics Committee of Peking University Sixth Hospital, 7th February 2021

**Consent for publication:** Not applicable

**Availability of data and materials:** The dataset resulting from this project will be available in de-identified format on reasonable request to the first author. The manual and measures will also be available on reasonable request to the first author.
Competing interests: The author(s) declare that they have no competing interests.

**Funding**

This work was supported by the Medical Research Council (MRC; grant number MR/R023697/1). The funding body had no role in the design of the study, its data collection, analysis, and interpretation, or the writing of this manuscript.

This work was supported by Health and Family Planning Commission of Guangzhou Municipality, belonging to mental health model research in community of Guangzhou (grant number 2016A031002).

BAK and DG are supported by the U.S. National Institute of Mental Health (Grant #: R01MH)

PCG is supported by the UK Medical Research Council in relation the Indigo Partnership (MR/R023697/1) award.

GT is supported by the National Institute for Health Research (NIHR) Applied Research Collaboration South London at King’s College London NHS Foundation Trust, and by the NIHR Asset Global Health Unit award. The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR or the Department of Health and Social Care. GT also receives support from the National Institute of Mental Health of the National Institutes of Health under award number R01MH100470 (Cobalt study).

GT is supported by the UK Medical Research Council MRC in relation the Emilia (MR/S001255/1) and Indigo Partnership (MR/R023697/1) awards.

IB is supported by the NIHR BRC at South London and Maudsley NHS Foundation Trust and King’s College London and by the NIHR Applied Research Collaboration South London (NIHR ARC South London) at King’s College Hospital NHS Foundation Trust

PKM is the Principal Investigator on UK Research and Innovation (UKRI)/MRC grant MR/S023224/1 - Adolescents' Resilience and Treatment nEeds for Mental health in Indian Slums (ARTEMIS) and Co-
Principal Investigator on NHMRC/GACD grant APP1143911 - Systematic Medical Appraisal, Referral and Treatment for Common Mental Disorders in India – (SMART) Mental Health.

CH is funded through the ASSET research programme, supported by the UK’s National Institute of Health Research (NIHR; NIHR Global Health Research Unit on Health Systems Strengthening in Sub-Saharan Africa at King’s College London [16/136/54]) using UK aid from the UK Government. CH also receives support from NIHR through grant NIHR200842. The views expressed in this publication are those of the authors and not necessarily those of the NHS, the National Institute for Health Research, or the Department of Health and Social Care, England. CH receives support from AMARI as part of the DELTAS Africa Initiative [DEL- [15-01] and the Wellcome Trust (Grant 222154).

Authors’ contributions C Henderson drafted outlines of the study protocol and protocol paper. All authors added content to the protocol and protocol paper, contributed to critical revisions of the paper, and read and approved the final manuscript.

Acknowledgements

This study is part of the Indigo Partnership research programme, which in turn is a part of the Indigo Network; a collaboration of research colleagues in over 30 countries worldwide committed to developing knowledge about mental-illness-related stigma and discrimination, both in terms of their origins and their eradication. It is coordinated by the Centre for Global Mental Health, Institute of Psychiatry, Psychology and Neuroscience at King’s College London.

Authors' information
IB, King’s College London, Centre for Implementation Science, Health Services and Population Research Department, Institute of Psychiatry, Psychology and Neuroscience, London, United Kingdom; King’s College London, Department of Biostatistics and Health Informatics, Institute of Psychiatry, Psychology and Neuroscience, London, United Kingdom.

NB BPsych; Department of Psychology, Laboratory of Clinical Psychology: Intersubjectivity and Culture, University of Tunis, Tunisia

KB, Research Officer, Transcultural Psychosocial Organization, Nepal

EB, PhD. Centre for Global Mental Health, Health Services and Population Research Department, Institute of Psychiatry, Psychology and Neuroscience, King’s College London, De Crespigny Park, London, SE5 8AF, UK.

AVC, National Institute of Mental Health and Neurosciences (NIMHANS), Bengaluru, India

EG, Department of Preventive Medicine, School of Public Health, College of Health Sciences, Addis Ababa University, Addis Ababa, Ethiopia

PCG, PhD. Centre for Global Mental Health and Centre for Implementation Science, Health Service and Population Research Department, Institute of Psychiatry, Psychology and Neuroscience, King’s College London, De Crespigny Park Box, London, SE5 8AF, UK

DG, Transcultural Psychosocial Organization (TPO) Nepal, Kathmandu, Nepal

Centre for Global Mental Health and Centre for Implementation Science, Health Service and Population Research Department, Institute of Psychiatry, Psychology and Neuroscience, King’s College London, De Crespigny Park Box, London, SE5 8AF, UK

CHA PhD, Centre for Global Mental Health, Health Service and Population Research Department, Institute of Psychiatry, Psychology and Neuroscience, King’s College London, De Crespigny Park Box, London, SE5 8AF, UK
Department of Psychiatry, WHO Collaborating Centre for Mental Health Research and Capacity-building,
School of Medicine, College of Health Sciences, Addis Ababa University, Addis Ababa, Ethiopia
Centre for Innovative Drug Development and Therapeutic Trials for Africa, College of Health Sciences,
Addis Ababa University, Addis Ababa, Ethiopia
CHe, FRCPsych PhD, Centre for Implementation Science, Health Service and Population Research
Department, King’s College London Institute of Psychiatry, Psychology and Neuroscience, De Crespigny
Park Box, London, SE5 8AF, UK. South London and Maudsley NHS Foundation Trust, Denmark Hill,
London SE5 8AZ
SK, George Institute for Global Health, 308 Elegance Tower, New Delhi 110025, India;
AK, George Institute for Global Health, 308 Elegance Tower, New Delhi 110025, India;
BK, Department of Preventive Medicine, School of Public Health, College of Health Sciences, Addis
Ababa University, Addis Ababa, Ethiopia
HL, Centre for Rheumatic Diseases, Department of Inflammation Biology, School of Immunology and
Microbial Sciences, Faculty of Life Sciences & Medicine, Weston Education Centre, 10, Cutcombe Rd.
London SE5 9RJ
JL, The Affiliated Brain Hospital of Guangzhou Medical University (Guangzhou Huiai Hospital), NO. 36
Mingxin Road, Liwan District, Guangzhou 510370, China.
SL, National Institute of Mental Health and Neurosciences (NIMHANS), Bengaluru, India
Maulik, Pallab K, George Institute for Global Health, 308 Elegance Tower, New Delhi 110025, India;
Faculty of Medicine, University of New South Wales, Sydney, Australia
NM, Peking University Sixth Hospital (Institute of Mental Health), National Clinical Research Center for
Mental Disorders & Key Laboratory of Mental Health, Ministry of Health (Peking University) No 51,
Huayuanbei Road, Haidian District, Beijing, 100191, China.
GM, National Institute of Mental Health and Neurosciences (NIMHANS), Bengaluru, India
TM, Department of Preventive Medicine, School of Public Health, College of Health Sciences, Addis Ababa University, Addis Ababa, Ethiopia

UO, M.D., Department Psychiatry A, Razi University Hospital, Cité des Orangers, 2010 La Manouba, Tunisia; Faculty of Medicine of Tunis, University of Tunis El Manar, Tunisia

RR, King’s Health Economics, Health Service and Population Research Department, Institute of Psychiatry, Psychology and Neuroscience, King’s College London, De Crespigny Park Box, London, SE5 8AF, UK

GT, Centre for Global Mental Health and Centre for Implementation Science, Health Service and Population Research Department, Institute of Psychiatry, Psychology and Neuroscience, King’s College London, De Crespigny Park Box, London, SE5 8AF, UK.

RKV, National Institute of Mental Health and Neurosciences (NIMHANS), Bengaluru, India

YZ, M.D. Department Psychiatry A, Razi University Hospital, Cité des Orangers, 2010 La Manouba, Tunisia; Faculty of Medicine of Tunis, University of Tunis El Manar, Tunisia

WZ, Peking University Sixth Hospital (Institute of Mental Health), National Clinical Research Center for Mental Disorders & Key Laboratory of Mental Health, Ministry of Health (Peking University)

No 51, Huayuanbei Road, Haidian District, Beijing, 100191, China.

References

Alem, A., Pain, C., Araya, M., & Hodges, B. D. (2010). Co-creating a psychiatric resident program with Ethiopians, for Ethiopians, in Ethiopia: the Toronto Addis Ababa Psychiatry Project (TAAPP). Acad Psychiatry, 34(6), 424-432. doi:10.1176/appi.ap.34.6.424

Anderson, P., & Clement, S. (1987). The AAPPQ revisited: the measurement of general practitioners' attitudes to alcohol problems. Br J Addict, 82(7), 753-759. doi:10.1111/j.1360-0443.1987.tb01542.x

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3, 77-101.

Corrigan, P., & Angermeyer, M. (2012). Stigma blocks recovery from mental illness. World Psychiatry, 11(1), 61. Retrieved from PM:22295014
Deb, T., Lempp, H., Bakolis, I., Vince, T., Waugh, W., & Henderson, C. (2019). Responding to experienced and anticipated discrimination (READ): anti-stigma training for medical students towards patients with mental illness - study protocol for an international multisite non-randomised controlled study. *BMC Med Educ, 19*(1), 41. doi:10.1186/s12909-019-1472-7

Frank, J., Snell, L., Sherbino, J., editors. (2015). *CanMEDS 2015 Physician Competency Framework.* Retrieved from Ottawa:

Gabbidon, J., Farrelly, S., Hatch, S. L., Henderson, C., Williams, P., Bhugra, D., . . . Clement, S. (2014). Discrimination attributed to mental illness or race-ethnicity by users of community psychiatric services. *Psychiatr Serv, 65*(11), 1360-1366. doi:10.1176/appi.ps.201300302

Griffith, J. L., & Kohrt, B. A. (2016). Managing Stigma Effectively: What Social Psychology and Social Neuroscience Can Teach Us. *Acad Psychiatry, 40*(2), 339-347. doi:10.1007/s40596-015-0391-0

Gronholm, P., Bakolis, I., Cherian, A.; Davies, K, Evans-Lacko, S, Girma, E, Gurung, D, Hanlon, C, Hanna, F, Henderson, C, Kohrt, BA. Lempp, H, Li, J, Loganathan, S, Maulik, PK, Ning, M, Ouali, U, Romeo, R, Rüschi, N, Semrau, M, Taylor Salisbury, T, Votruba, N, Zhang, W, Thornicroft, G. Toward a multi-level strategy to reduce stigma in global mental health: developing and testing interventions in low- and middle-income countries through the Indigo Partnership research program. Submitted for publication.

Guerrero, Z., Iruretagoyena, B., and Henderson, C. *Anti-stigma Advocacy for Health Professionals: A systematic review.*

Hamilton, S., Pinfold, V., Cotney, J., Couperthwaite, L., Matthews, J., Barret, K., . . . Henderson, C. (2016). Qualitative analysis of mental health service users' reported experiences of discrimination. *Acta Psychiatr Scand, 134 Suppl 446*(Suppl Suppl 446), 14-22. doi:10.1111/acps.12611

Henderson, C., Noblett, J., Parke, H., Clement, S., Caffrey, A., Gale-Grant, O., . . . Thornicroft, G. (2014). Mental health-related stigma in health care and mental health-care settings. *Lancet Psychiatry, 1*(6), 467-482. doi:10.1016/s2215-0366(14)00023-6

Hoffmann, T. C., Glasziou, P. P., Boutron, I., Milne, R., Perera, R., Moher, D., . . . Miche, S. (2014). Better reporting of interventions: template for intervention description and replication (TIDieR) checklist and guide. *Bmj, 348*, g1687. doi:10.1136/bmj.g1687

Jorm, A. F., Korten, A. E., Jacomb, P. A., Christensen, H., & Henderson, S. (1999). Attitudes towards people with a mental disorder: a survey of the Australian public and health professionals. *Australian & New Zealand Journal of Psychiatry, 33*(1), 77-83. Retrieved from http://anp.sagepub.com/content/33/1/77.full.pdf

Khan, K. Z., Ramachandran, S., Gaunt, K., & Pushkar, P. (2013). The Objective Structured Clinical Examination (OSCE): AMEE Guide No. 81. Part I: an historical and theoretical perspective. *Med Teach, 35*(9), e1437-1446. doi:10.3109/0142159x.2013.818634

Kohrt, B. A., Jordans, M. J., Rai, S., Shrestha, P., Luitel, N. P., Ramaiya, M. K., . . . Patel, V. (2015). Therapist competence in global mental health: Development of the ENhancing Assessment of Common Therapeutic factors (ENACT) rating scale. *Behav Res Ther, 69*, 11-21. doi:10.1016/j.brat.2015.03.009

Lagunes-Cordoba, E., Davalos, A., Fresan-Orellana, A., Jarrett, M., Gonzalez-Olvera, J., Thornicroft, G., & Henderson, C. (2021). Mental Health Service Users' Perceptions of Stigma, From the General Population and From Mental Health Professionals in Mexico: A Qualitative Study. *Community Ment Health J, 57*(5), 985-993. doi:10.1007/s10597-020-00706-4

Lauber, C., Anthony, M., Ajdacic-Gross, V., & Rössler, W. (2004). What about psychiatrists' attitude to mentally ill people? *Eur Psychiatry, 19*(7), 423-427. doi:10.1016/j.eurpsy.2004.06.019
Lauber, C., Nordt, C., Braunschweig, C., & Rossler, W. (2006). Do mental health professionals stigmatize their patients? *Acta Psychiatrica Scandinavica, Supplementum*(429), 51-59. Retrieved from http://ovidsp.ovid.com/ovidweb.cgi?T=JS&CSC=Y&NEWS=N&PAGE=fulltext&D=med5&AN=16445483

Le Boutillier, C., Leamy, M., Bird, V. J., Davidson, L., Williams, J., & Slade, M. (2011). What does recovery mean in practice? A qualitative analysis of international recovery-oriented practice guidance. *Psychiatr Serv, 62*(12), 1470-1476. doi:10.1176/appi.ps.001312011

Li, J., Fan, Y., Zhong, H. Q., Duan, X. L., Chen, W., Evans-Lacko, S., & Thornicroft, G. (2019). Effectiveness of an anti-stigma training on improving attitudes and decreasing discrimination towards people with mental disorders among care assistant workers in Guangzhou, China. *Int J Ment Health Syst, 13*, 1. doi:10.1186/s13033-018-0259-2

Linden, M., & Kavanagh, R. (2012). Attitudes of qualified vs. student mental health nurses towards an individual diagnosed with schizophrenia. *Journal of Advanced Nursing, 68*(6), 1359-1368. doi:10.1111/j.1365-2648.2011.05848.x

Magliano, L., De Rosa, C., Fiorillo, A., Malangone, C., Guarneri, M., Marasco, C., & Maj, M. (2004). Beliefs of psychiatric nurses about schizophrenia: a comparison with patients' relatives and psychiatrists. *Int J Soc Psychiatry, 50*(4), 319-330. doi:10.1177/0020764004046073

Mehta, N., Clement, S., Marcus, E., Stona, A. C., Bezborodovs, N., Evans-Lacko, S., . . . Thornicroft, G. (2015). Evidence for effective interventions to reduce mental health-related stigma and discrimination in the medium and long term: systematic review. *Br J Psychiatry, 207*(5), 377-384. doi:10.1192/bjp.bp.114.151944

Perry, A., Lawrence, V., & Henderson, C. (2020). Stigmatisation of those with mental health conditions in the acute general hospital setting. A qualitative framework synthesis. *Soc Sci Med, 255*, 112974. doi:10.1016/j.socscimed.2020.112974

Potts, L., Bakolis, I, Deb, T, Lempp, H, Vince T, Benbow, Y, Waugh W, Kim S, Raza S, Henderson C and the INDIGO READ study group. *Anti-stigma training and positive changes in mental health related empathy development, anxiety reduction and stigma outcomes in medical students in ten countries: A mediation analysis*

Rai, S., Gurung, D., Kaiser, B. N., Sikkema, K. J., Dhakal, M., Bhardwaj, A., . . . Kohrt, B. A. (2018). A service user co-facilitated intervention to reduce mental illness stigma among primary healthcare workers: Utilizing perspectives of family members and caregivers. *Fam Syst Health, 36*(2), 198-209. doi:10.1037/fsh0000338

Sartorius, N. (1998). Stigma: what can psychiatrists do about it? *Lancet, 352*(9133), 1058-1059. Retrieved from PM:9759771

Saxena, S., Thornicroft, G., Knapp, M., & Whiteford, H. (2007). Resources for mental health: scarcity, inequity, and inefficiency. *Lancet, 370*(9590), 878-889. doi:10.1016/s0140-6736(07)61239-2

Schulze, B. (2007). Stigma and mental health professionals: A review of the evidence on an intricate relationship. *Int.Rev.Psychiatry, 19*(2), 137-155. Retrieved from PM:17464792

Schutz, S. (2007). Reflection and reflective practice. *Community Pract, 80*(9), 26-29.
Sheely-Moore, A. I., & Kooyman, L. (2011). Infusing Multicultural and Social Justice Competencies Within Counseling Practice: A Guide for Trainers. 10(2), 102-109. doi:https://doi.org/10.1002/j.2161-0029.2011.tb00129.x

Thornicroft, C., Wyllie, A., Thornicroft, G., & Mehta, N. (2014). Impact of the "Like Minds, Like Mine" anti-stigma and discrimination campaign in New Zealand on anticipated and experienced discrimination. *Aust N Z J Psychiatry, 48*(4), 360-370. doi:10.1177/004867413512687

Thornicroft, G., Mehta, N., Clement, S., Evans-Lacko, S., Doherty, M., Rose, D., . . . Henderson, C. (2016). Evidence for effective interventions to reduce mental-health-related stigma and discrimination. *Lancet (London, England), 387*(10023), 1123-1132. doi:10.1016/s0140-6736(15)00298-6

Vibha, P., Saddichha, S., & Kumar, R. (2008). Attitudes of ward attendants towards mental illness: comparisons and predictors. *Int J Soc Psychiatry, 54*(5), 469-478. doi:10.1177/0020764008092190

Wang, K., Link, B. G., Corrigan, P. W., Davidson, L., & Flanagan, E. (2018). Perceived provider stigma as a predictor of mental health service users' internalized stigma and disempowerment. *Psychiatry Res, 259*, 526-531. doi:10.1016/j.psychres.2017.11.036

Zaske, H., Freimuller, L., Wolwer, W., & Gaebel, W. (2014). [Anti-stigma competence for mental health professionals: results of a pilot study of a further education programme for people working in psychiatric and psychosocial settings]. *Fortschr Neurol Psychiatr, 82*(10), 586-592. doi:10.1055/s-0034-1385130