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Educational and training interventions aimed at healthcare workers in the detection and management of people with mental health conditions in South and Southeast Asia: systematic review protocol

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ABSTRACT

Introduction The mental health burden and treatment gap in South and Southeast Asia is high and significant. Capacity building of healthcare workers is essential to support programmes related to the detection and management of patients with mental health conditions. We aim to conduct a systematic review to summarise the research on educational, training and capacity-building interventions aimed at the healthcare workforce in detection and management of mental health conditions in South and Southeast Asia.

Objective To synthesise evidence on (1) the types of educational and training interventions that have been used to improve the knowledge, skills and attitudes of healthcare workers in South and Southeast Asian countries in the detection and management of mental health conditions; (2) the effectiveness, including cost-effectiveness of the interventions; and (3) the enabling factors and barriers that influence the effectiveness of these interventions.

Methods and analysis This review will be conducted in accordance with Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews guidelines. We will search six electronic databases: MEDLINE, EMBASE, PsycINFO, Cochrane Library, Cumulative Index to Nursing and Allied Health Literature, and Global Health for empirical studies published from 1 January 2000 to 31 August 2020. Search results from each database will be combined and uploaded in Covidence library. Title, abstract and full-text screening, and data extraction of each included study will be performed by two independent reviewers. Disagreements between reviewers will be resolved by a third reviewer and study team. Quality of included studies will be assessed by the modified Cochrane Collaboration tool and ROBINS-I tool. Data will be synthesised and if a meta-analysis is not appropriate, a stepwise thematic analysis will be performed.

Ethics and dissemination Ethics approval is not required for this study. Findings will be disseminated through peer-reviewed publications, fact sheets, multimedia press briefings, conferences, seminars and symposia.

PROSPERO registration number CRD42020203955.

Strengths and limitations of this study

- This is the first systematic review of evidence of the effectiveness of educational and training interventions for healthcare workers to improve the detection and management of mental health disorders in the context of South and Southeast Asia which will assist policymakers to strengthen human resources and the mental healthcare system in the included countries.
- This research protocol follows the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews protocol to minimise and protect against risk of biases and allow peer review.
- There may be inadequate numbers of published studies in this area limiting the ability to undertake a meta-analysis.
- This review excludes published studies that are not in English and may limit the findings by introducing a language bias.

BACKGROUND

Effective health systems should deliver adequate and comprehensive health services, including mental health services to all people.[1] However, health systems globally and particularly in low/middle-income countries (LMICs) have inadequately responded to the high burden of mental health disorders.[1] More than 70% of people in LMICs experience a mental health disorder[2 3] and this burden is more extensive in South and Southeast Asian countries.[4 5] The disability-adjusted life year for mental illness in South Asian countries is 2000 per 100 000 population[6] and 11 000 in Southeast Asian countries.[7 8] In these regions, the

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prevalence of mental health disorders varies among countries and reported to range from 6.5% to 31.0%.[8–10] Despite the high burden, the mental health treatment gap in LMICs is very high with between 76% and 84% of people with a mental illness not receiving treatment.[11] The impact of untreated mental disorders on individuals and their families often leads to low quality of life, stigma, discrimination, poor physical health and premature mortality.[12]

A trained health workforce is one of the key components of health systems, but there is scarcity and inequity in distribution and inefficiency of health human resources in developing countries.[13–15] These problems are more acute for mental health.[13–15] In South Asian countries, per 100 000 people the number of psychiatrists range from 0.3 in India to 2.4 in Maldives and 0.2 in other South Asian countries compared with 10.5 in the USA, which shows gross inadequacy.[16 17] In addition, the mental health workforce is mainly concentrated in urban areas, where there are few primary healthcare workers trained in mental healthcare. Inadequate mental health training among primary healthcare workers and inadequate staffing of mental health specialists, together with a lack of appropriate skill mix, affect the overall care pathways in terms of diagnosis, treatment and prevention of mental illness.[13 18]

Human resources are an integral but a costly component of all health systems.[19] Researchers have reported that training programmes on mental health are effective in enhancing knowledge, attitudes and practices among the healthcare professionals.[20] Task sharing or a collaborative stepped care approach is one of the arrangements in which non-clinical specialists, like lay workers or informal caregivers, receive training and appropriate supervision by the specialist health professionals to enable them to screen and manage a mental disorder.[21] Due to the workforce shortage in low-resource settings in South Asia, adopting these approaches may help to address some of the unmet mental healthcare needs.[22 23]

In several studies in LMICs, researchers also have reported that these care methods led by lay health workers were successful in managing depression and anxiety in primary care setting.[24–26] This is an important finding as most primary care settings in LMICs have no regular specialists. In order to make sustainable and effective changes to practice among trained healthcare workers, ongoing learning and skill development needs to be integral to the capacity-building intervention.[27] Scaling up a stepped care model within the health systems might offer opportunities related to service provision.[28] There might be other interventions that are suitable for LMIC settings; however, there is currently no systematic review on the topic of interventions related to building capacity of the healthcare workforce. This review is designed to synthesise evidence about best practices from South Asian and Southeast Asian countries to strengthen mental healthcare pathways.

AIMS AND OBJECTIVES

Our aim for this systematic review is to synthesise evidence about the effectiveness of interventions aimed at developing the healthcare workforce to strengthen mental healthcare in South Asian and Southeast Asian countries.

Our objectives are to determine: (1) the types of educational and training interventions that have been used to improve the knowledge, skills and attitudes of healthcare workers in South and Southeast Asian countries in the detection and management of mental health conditions, (2) the effectiveness including cost-effectiveness of these interventions; and (3) the enabling factors and barriers that influence the effectiveness of these interventions.

METHODS AND ANALYSIS

This current protocol has been drafted following the recommendations by the standard guideline Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) Protocol checklist[29] (see online supplemental file 1). We will also conduct and report the findings of this systematic review according to PRISMA guidelines upon completion. This review has also been registered in the International Prospective Register of Systematic Reviews (PROSPERO, https://www.crd.york.ac.uk/PROSPERO).

Inclusion and exclusion criteria

Types of participants

We will include studies conducted among healthcare workers who are directly involved in the provision of clinical care. Healthcare workers include doctors, nurses, primary healthcare workers, community workers, community volunteers such as Shastha Shebika and lay health counsellors. Volunteers or medical or nursing students will be excluded as study participants because they do not reflect the formal healthcare system and are not directly involved in the provision of clinical care.

Types of interventions

Interventions of interest include any activity associated with education, training or capacity building that aims to improve the ability of healthcare workers to detect and manage mental health disorders. The training can take place in any setting, face to face or online, and over any duration. We will exclude studies where programmes other than educational and training interventions were used.

Types of outcome measures

We will include studies that report improvements in detection and management of mental health conditions by healthcare workers, and their knowledge, skills and attitudes of mental health conditions. We will include both common and severe mental health disorders, as defined by the WHO's International Classification of Diseases (ICD-10) and ICD-II or Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) and DSM-V. We will also include case studies with more descriptive outcomes such

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as the number of healthcare workers trained and the number of the people detected with mental illness. We will exclude studies with outcomes that do not include mental health conditions.

Types of studies

We will include all available studies such as randomised controlled trials, quasi-randomised controlled trials, propensity matched trials, non-randomised controlled trials, pre-intervention and post-intervention studies, and observational studies such as case reports, case studies, systematic reviews and qualitative studies. We will exclude publications that are conference proceedings, posters or books, and book chapters and studies whose full text were unavailable.

Comparator

We will include all studies regardless if they had a comparator group or not. If a comparator group is present, then they will be included if they were provided any intervention or usual training or if they were provided with no intervention.

Study setting

We will include studies that were conducted in all healthcare settings, such as primary healthcare centres, community care centres, public and/or private hospitals, or clinics. All studies have to take place in South Asian and Southeast Asian countries. We will exclude studies where interventions were provided outside healthcare settings.

Information sources

We will search the following electronic databases to retrieve relevant articles: MEDLINE, EMBASE, PsycINFO, Cochrane Library, Cumulative Index to Nursing and Allied Health Literature (CINAHL), and Global Health.

Study records

We will use reference management software Covidence, an online systematic review tool recommended by the Cochrane Collaboration, to organise articles retrieved from the comprehensive literature search from different electronic databases.[30]

Context

We will include studies conducted in the South Asia and Southeast Asia region. South Asian countries are defined by the World Bank and Southeast Asia region, defined by WHO, to include the following countries: Bangladesh, India, Pakistan, Sri Lanka, Afghanistan, Nepal, Bhutan, Maldives, Democratic People's Republic of Korea, Indonesia, Myanmar, Thailand and Timor-Leste.[31 32] We will exclude studies conducted outside South Asia and Southeast Asia.

Study period

We will include studies published from 1 January 2000 to 31 August 2020.

Study language

We will include full-text studies published in the English language and exclude full-text non-English-language publications.

Search strategy

The study team will conduct a systematic review of educational and training interventions aimed at healthcare workers in the detection and management of people with mental health conditions in South Asia and Southeast Asia.

A comprehensive search strategy will be developed, which will involve mapping of concepts, and for each database the search terms will be adapted. We will develop the concepts for our key search terms using the population, intervention, comparison, outcome framework in table 1. Please see the final search strategy of the databases MEDLINE, EMBASE, PsycINFO, Global health, CINAHL and Cochrane in online supplemental file 2.

Screening and data extraction

Search results from different electronic databases will be combined and uploaded in a single Covidence library. Duplicate articles will be removed. A data extraction framework will be designed and implemented for studies eligible for inclusion in this review. Studies retrieved using the search strategy will be independently screened by title and abstract by two reviewers. Where the two reviewers agree about inclusion of a study, this study will be put forward for full-text screening. Two reviewers will upload the available articles in the Covidence and screen full text of retrieved articles independently. In case of disagreement, the study will be independently reviewed by a third researcher. Data will be extracted from studies finally selected for inclusion.

Table 1 Key terms used for developing comprehensive search strategy

Population	Intervention	Comparison	Outcome
Healthcare workers in South Asia and Southeast Asia	Training, education and capacity building	Control group with any intervention or usual training or no interventions	► Improvement in detection and management of mental health conditions by healthcare workers ► Improvement of knowledge, skills and attitudes of the mental health conditions by healthcare workers

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Quality assessment

Quality of the study or risk of bias will be assessed by two independent reviewers. All randomised and quasi-randomised controlled trials will be assessed using the modified Cochrane Collaboration tool where bias is assessed as a judgement of high, low, unclear across five domains (selection, performance, attrition, reporting and other). For non-randomised studies of interventions, the ROBINS-I tool will be used to assess risk of bias. Any disagreements between the two researchers on the quality assessment will be resolved by discussion with the study review team.

Descriptive analysis and meta-analysis

The review synthesis will be structured around the type of intervention in relationship to detection and management, country and population characteristics such as the category of healthcare worker and other sociodemographic information, mental health condition, and age range. We will provide summaries of intervention effects where possible, calculate mean differences or percentages for continuous outcomes. We will pool data for dichotomous and continuous outcomes and calculate risk ratios/prevalence and 95% CIs for dichotomous outcomes.

We anticipate substantial variation among studies that meet our inclusion criteria. If possible, we will visually explore any heterogeneity in results for primary outcomes using bubble plots or box plots (displaying medians, IQRs and ranges). If there are sufficient data, we will also explore heterogeneity in findings for primary outcomes using meta-regression. For data analysis, Stata V.16 will be used. Where data are not available, we will provide a narrative synthesis of the findings from the included studies.

Patient and public involvement

The patients and public will not be involved in this review.

ETHICS AND DISSEMINATION

No ethical approval is required for this review as data have already been published. Findings of this systematic review will be presented for peer review in an appropriate journal and presented to researchers and clinicians at suitable conferences. Findings will be disseminated through peer-reviewed publications, fact sheets and multimedia press briefings, for example, in conferences or seminars or symposia.

AMENDMENTS

If this protocol needs to be amended, the date of each amendment, changes and rationale will be described in this section, and updated on PROSPERO registration.

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Contributors KNK, CB, IL and SG developed the study protocol with contributions from MR, GL and SR. KNK, CB and IL drafted the initial manuscript from the systematic review protocol submitted for registration to PROSPERO. KNK, CB, IL and SG developed the search strategy with the support of the librarian from Imperial College London. KNK and CB will screen the title, abstract, full texts of the retrieved articles; and SG will resolve any conflict as the third reviewer in discussion with other members of the research team to seek agreement. KNK, CB and IL will conduct data extraction. All authors contributed to generate the idea and conception of the systematic review. All authors will critically read, provide feedback and revise the manuscript, and approve the final version of the manuscript for submission.

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Competing interests None declared.

Patient and public involvement statement No patient involved

Patient consent for publication Not required.

Ethics approval No ethical approval is required for this review as data have already been published.

Provenance and peer review Not commissioned; externally peer reviewed.

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Supplementary Table 1: PRISMA-P Checklist with manuscript page number reference.

Section and topic	Item No	Checklist item	Page
ADMINISTRATIVE INFORMATION			
Title:			
Identification	1a	Identify the report as a protocol of a systematic review	1
Update	1b	If the protocol is for an update of a previous systematic review, identify as such	N/A
Registration	2	If registered, provide the name of the registry (such as PROSPERO) and registration number	2
Authors:			
Contact	3a	Provide name, institutional affiliation, e-mail address of all protocol authors; provide physical mailing address of corresponding author	1
Contributions	3b	Describe contributions of protocol authors and identify the guarantor of the review	9-10
Amendments	4	If the protocol represents an amendment of a previously completed or published protocol, identify as such and list changes; otherwise, state plan for documenting important protocol amendments	N/A
Support:			
Sources	5a	Indicate sources of financial or other support for the review	10
Sponsor	5b	Provide name for the review funder and/or sponsor	10
Role of sponsor or funder	5c	Describe roles of funder(s), sponsor(s), and/or institution(s), if any, in developing the protocol	N/A
INTRODUCTION			
Rationale	6	Describe the rationale for the review in the context of what is already known	5
Objectives	7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)	5
METHODS			

Eligibility criteria	8	Specify the study characteristics (such as PICO, study design, setting, time frame) and report characteristics (such as years considered, language, publication status) to be used as criteria for eligibility for the review	5-7
Information sources	9	Describe all intended information sources (such as electronic databases, contact with study authors, trial registers or other grey literature sources) with planned dates of coverage	7
Search strategy	10	Present draft of search strategy to be used for at least one electronic database, including planned limits, such that it could be repeated	As supplementary file
Study records:			
Data management	11a	Describe the mechanism(s) that will be used to manage records and data throughout the review	7
Selection process	11b	State the process that will be used for selecting studies (such as two independent reviewers) through each phase of the review (that is, screening, eligibility and inclusion in meta-analysis)	8
Data collection process	11c	Describe planned method of extracting data from reports (such as piloting forms, done independently, in duplicate), any processes for obtaining and confirming data from investigators	8
Data items	12	List and define all variables for which data will be sought (such as PICO items, funding sources), any pre-planned data assumptions and simplifications	5-7
Outcomes and prioritization	13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale	6
Risk of bias in individual studies	14	Describe anticipated methods for assessing risk of bias of individual studies, including whether this will be done at the outcome or study level, or both; state how this information will be used in data synthesis	8
Data synthesis	15a	Describe criteria under which study data will be quantitatively synthesised	8-9
	15b	If data are appropriate for quantitative synthesis, describe planned summary measures, methods of handling data and methods of combining data from studies, including any planned exploration of consistency (such as I^2, Kendall's τ)	N/A

	15c	Describe any proposed additional analyses (such as sensitivity or subgroup analyses, meta-regression)	N/A
	15d	If quantitative synthesis is not appropriate, describe the type of summary planned	8-9
Meta-bias(es)	16	Specify any planned assessment of meta-bias(es) (such as publication bias across studies, selective reporting within studies)	N/A
Confidence in cumulative evidence	17	Describe how the strength of the body of evidence will be assessed (such as GRADE)	N/A

From: Shamseer L, Moher D, Clarke M, Ghersi D, Liberati A, Petticrew M, Shekelle P, Stewart L, PRISMA-P Group. Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015: elaboration and explanation. BMJ. 2015 Jan 2;349(jan02 1):g7647.

Supplementary File
Search strategy conducted on 3 August 2020 on Medline, Embase, Psych Info, Global health, CINAHL and Cochrane

Medline
1. Population **MeSh terms:** exp health personnel/ **Key words:** (psychologist* or psychiatrist* or nurse* or doctor* or physician* or general practi* or hospitalist* or clinician* or close to community provider).mp. ((lay or health) adj counsellor).mp. (medical adj (practi* or staff or personnel or profession*)).mp. (healthcare adj2 (worker* or provider* or personnel or professional*)).mp. (Health* adj2 (worker* or workforce or Personnel or professional*)).mp. (primary health adj2 (worker* or provider* or practitioner*)).mp. (community adj2 (worker* or health care provider* or health worker* or healthcare worker* or primary care provider* or primary healthcare provider* or health officer* or health promoter* or health volunteer* or health assistant* or volunteer*)).mp. (Physician Assistants or Medical assistant or Clinical officer or Emergency Medical Technicians or Primary care paramedic or Advanced care paramedic).mp. (lay adj2 (worker or health worker or health counsellor or counsellor)).mp.
2. Intervention **MeSh terms:** exp education/ exp teaching/ capacity building/ **Key words:** **Capacity build***

(train* or teach* or educate or upskill* or instruct* or capacity build*).mp. ((career or staff or personal or profession* or personnel) adj2 development).mp.
3. Context **MeSh terms:** bangladesh/ or bhutan/ or exp india/ or afghanistan/ or nepal/ or pakistan/ or sri lanka/ or thailand/ or myanmar/ or North Korea/ or indonesia/ or Timor-leste/ **Key words:** (South$ or west*) asia*.mp. Indian subcontinent.mp. Indian ocean islands.mp. bangladesh* or bhutan* or nepal* or india* or afghan* or pakistan* or sri lanka* or maldiv* or Thai* or Thailand or Myanmar or Burmese or North korea or Democratic People's Republic of Korea or Indonesia* or Timor-Leste or Timorese.mp.
4. Mental health context **MeSh terms:** Exp psychological stress/ or exp mental health/ or exp mental disorders/ or exp affective disorders/ or exp psychological stress/ or exp depression/ or exp anxiety/ **Key words:** (depress* or anxi* or mood disorder).mp. suicid* (mental adj2 (health or stress or disorder* or illness* or problem*)).mp. (psychological adj2 (disorder* or illness* or problem*)).mp. (Psychiatric adj1 (disorder* or illness* or problem*)).mp.

Embase
1. Population

MeSh terms: exp health care personnel/ or exp advanced practice provider/ or exp care coordinator/ or exp clinician/ or exp emergency medical dispatcher/ or exp health auxiliary/ or exp health educator/ or exp health workforce/ or exp hospital personnel/ or exp lay health worker/ or exp medical personnel/ or exp mental health care personnel/ or exp nursing home personnel/ **Key words:** (psychologist* or psychiatrist* or nurse* or doctor* or physician* or general practi* or allied health personnel or clinician*).mp. ((lay or health) adj counsellor).mp. (medical adj (practi* or staff or personnel or profession*)).mp. (health* care adj2 (worker or provider or personnel or professional)).mp. (Health adj2 (Workforce or Personnel or professional)).mp. (primary health care adj (worker or provider or practitioner)).mp. (community adj (worker* or health care provider* or health worker* or healthcare worker* or primary care provider* or primary healthcare provider* or health officer or health promoter or health volunteer* or health assistant* or volunteer)).mp. (Physician Assistants or Medical assistant or Clinical officer or Emergency Medical Technicians or Primary care paramedic or Advanced care paramedic).mp. (lay adj2 (worker or health worker or health counsellor or counsellor)).mp.
2. Intervention **MeSh terms:** exp education/ or exp continuing education/ or exp education program/ or exp educational technology/ or exp health education/ or exp in service training/ or exp learning environment/ or exp medical education/ or exp problem based learning/ or exp teaching/ or exp vocational education/ exp teaching hospital/ or exp teaching/ exp capacity building/ **Key words:** (train* or teach* or educate or upskill* or instruct or capacity build*).mp. ((career or staff or personal or profession* or personnel) adj development).mp.
3. Context

MeSh terms:
Exp south asia/

Key words:
South$ asia*.mp.
Indian subcontinent.mp.
bangladesh* or bhutan* or nepal* or india* or afghan* or pakistan* or sri lanka* or maldiv* or Thai* or Thailand or Myanmar or Burmese or North korea or Democratic People's Republic of Korea or Indonesia* or Timor-Leste or Timorese).mp.

4. Mental health context

MeSh terms:
exp depression/ or exp stress, psychological/ or exp anxiety disorders/ or exp mood disorders/ or mental disease/ or mental health/

key words:
(depress* or anxi* or mood disorder).mp.
suicid*
(mental adj2 (health or stress or disorder* or illness* or problem*)).mp.
(psychological adj2 (disorder* or illness* or problem*)).mp.
(Psychiatric adj1 (disorder* or illness* or problem*)).mp.

Psych Info

1. Population

MeSh terms:
exp health personnel/ or exp professional personnel/ or exp allied health personnel/ or exp caregivers/ or exp medical personnel/ or exp mental health personnel/ or exp counselors/ or exp home care personnel/ or exp professional measures/ or exp rescue workers/ or exp social workers/ or exp teleconsultation/ or exp therapists/

Key words:

(psychologist* or psychiatrist* or nurse* or doctor* or physician* or general practi* or allied health personnel or clinician*).mp. ((lay or health) adj counsellor).mp. (medical adj (practi* or staff or personnel or profession*)).mp. (health* care adj2 (worker or provider or personnel or professional)).mp. (Health adj2 (Workforce or Personnel or professional)).mp. (primary health care adj (worker or provider or practitioner)).mp. (community adj (worker* or health care provider* or health worker* or healthcare worker* or primary care provider* or primary healthcare provider* or health officer or health promoter or health volunteer* or health assistant* or volunteer)).mp. (Physician Assistants or Medical assistant or Clinical officer or Emergency Medical Technicians or Primary care paramedic or Advanced care paramedic).mp. (lay adj2 (worker or health worker or health counsellor or counsellor)).mp.
2. Intervention **MeSh terms:** exp Continuing Education/ or exp Individual Education Programs/ or exp Career Education/ or exp Adult Education/ or exp Psychology Education/ or exp "Accreditation (Education Personnel)"/ or exp Distance Education/ or exp Counsellor Education/ or exp Health Education/ or exp Graduate Education/ or exp Business Education/ or exp Graduate Psychology Education/ or exp Medical Education/ or exp Art Education/ or exp Nursing Education/ or exp Cooperative Education/ or exp Multicultural Education/ or exp Education/ **Key words:** Capacity build*.mp. (train* or teach* or educate or upskill* or instruct).mp. ((career or staff or personal or profession* or personnel) adj development).mp.
3. Context **Key words:** (bangladesh* or bhutan* or nepal* or india* or afghan* or pakistan* or sri lanka* or maldiv* or Myanmar or Burmese or Thailand or Thai* or North Korea* or Bhutan* or Indonesia* or Timor-Leste or Timorese).mp. Indian ocean islands.mp.

Indian subcontinent.mp. South$ asia*.mp.
4. Mental health context **MeSh terms:** exp Psychological Stress/ or exp Mental Health/ or exp mental disorders/ or mental health/ or exp affective disorders/ **Key words:** (depress* or anxi* or mood disorder).mp. suicid* (mental adj2 (health or stress or disorder* or illness* or problem*)).mp. (psychological adj2 (disorder* or illness* or problem*)).mp. (Psychiatric adj1 (disorder* or illness* or problem*)).mp.
Global health
1. Population **MeSh terms:** exp personnel/ or hospital personnel/ or exp medical auxiliaries/ **Key words:** (psychologist* or psychiatrist* or nurse* or doctor* or physician* or general practi* or allied health personnel or clinician*).mp. ((lay or health) adj counsellor).mp. (medical adj (practi* or staff or personnel or profession*)).mp. (health* care adj2 (worker or provider or personnel or professional)).mp. (Health adj2 (Workforce or Personnel or professional)).mp. (primary health care adj (worker or provider or practitioner)).mp. (community adj (worker* or health care provider* or health worker* or healthcare worker* or primary care provider* or primary healthcare provider* or health officer or health promoter or health volunteer* or health assistant* or volunteer)).mp.

(Physician Assistants or Medical assistant or Clinical officer or Emergency Medical Technicians or Primary care paramedic or Advanced care paramedic).mp. (lay adj2 (worker or health worker or health counsellor or counsellor)).mp.
2. Intervention **MeSh terms:** exp professional education/ or exp education/ or exp career education/ or exp continuing education/ or exp education programmes/ or exp medical education/ or exp community education/ or exp adult education/ or exp non-formal education/ or exp practical education/ or exp competency based education/ exp teaching/ **Key words:** Capacity build*.mp. (train* or teach* or educate or upskill* or instruct).mp. ((career or staff or personal or profession* or personnel) adj development).mp.
3. Context **MeSh terns:** exp south asia/ **Key words:** (bangladesh* or bhutan* or nepal* or india* or afghan* or pakistan* or sri lanka* or maldiv* or Myanmar or Burmese or Thailand or Thai* or North Korea* or Bhutan* or Indonesia* or Timor-Leste or Timorese).mp. Indian ocean islands.mp. Indian subcontinent.mp. South$ asia*.mp.
4. Mental health context **MeSh terms:** exp depression/ or exp mental health/ or exp anxiety/

Key words: (depress* or anxi* or mood disorder).mp. suicid* (mental adj2 (health or stress or disorder* or illness* or problem*)).mp. (psychological adj2 (disorder* or illness* or problem*)).mp. (Psychiatric adj1 (disorder* or illness* or problem*)).mp.
CINAHL
1. Population psychologist* OR psychiatrist* OR doctor* OR physician* OR (general AND practition*) OR clinician* OR (allied AND health AND personnel) OR nurse* OR ((medical) AND (practition* OR staff OR personnel OR profession*)) OR ((health* AND care) AND (worker OR provider OR personnel OR professional)) OR ((health) AND ((workforce OR personnel OR professional)) OR ((primary AND health AND care) AND (worker OR provider OR practitioner)) OR ((community) AND (worker* OR (health AND care AND provider*)) OR (health AND worker*) OR (healthcare AND worker*) OR (primary AND care provider*) OR (primary AND healthcare AND provider*) OR (health AND officer) OR (health AND promoter) OR (health AND volunteer*) OR (health AND assistant*) OR (physician AND assistant*) OR (medical AND assistant*) OR (clinical AND officer*) OR (medical AND technician*) OR paramedic* OR ((lay) AND (worker OR (health AND worker))) OR (health AND counsellor) OR counsellor OR ((lay OR health) AND counsellor)
2. Intervention train* OR teach* OR educate OR upskill* OR instruct OR ((career OR staff OR profession* OR personal OR personnel) AND (development)) OR (capacity AND build*)
3. Context ((south* or west* AND asia*)) OR bangladesh* OR India* OR bhutan* OR nepal* OR pakistan* OR (sri lanka*) OR maldiv* OR afghan* OR Myanmar OR Burmese OR Thai* or North Korea* or Bhutan* or Indonesia* or Timor-Leste or Timorese)
4. Mental health context

anxi* OR depress* OR (mood AND disorder) OR (mental AND health) OR (mental AND disorder) OR (mental AND illness) or suicid* OR (psychiatric AND disorder) OR (psychological AND disorder*) or (psychological AND illness*) OR (psychological AND problem*) OR (psychiatric AND disorder*) OR (psychiatric AND illness*) OR (psychiatric AND problem*)

Cochrane
1. Population psychologist* OR psychiatrist* OR doctor* OR physician* OR (general AND practition*) OR clinician* OR (allied AND health AND personnel) OR nurse* OR ((medical) AND (practition* OR staff OR personnel OR profession*)) OR ((health* AND care) AND (worker OR provider OR personnel OR professional)) OR ((health) AND ((workforce OR personnel OR professional)) OR ((primary AND health AND care) AND (worker OR provider OR practitioner)) OR ((community) AND (worker* OR (health AND care AND provider*)) OR (health AND worker*) OR (healthcare AND worker*) OR (primary AND care provider*) OR (primary AND healthcare AND provider*) OR (health AND officer) OR (health AND promoter) OR (health AND volunteer*) OR (health AND assistant*) OR (physician AND assistant*) OR (medical AND assistant*) OR (clinical AND officer*) OR (medical AND technician*) OR paramedic* OR ((lay) AND (worker OR (health AND worker))) OR (health AND counsellor) OR counsellor OR ((lay OR health) AND counsellor)
2. Intervention train* OR teach* OR educate OR upskill* OR instruct OR ((career OR staff OR profession* OR personal OR personnel) AND (development)) OR (capacity AND build*)
3. Context (south* AND asia*) OR bangladesh* OR India* OR bhutan* OR nepal* OR pakistan* OR (sri lanka*) OR maldiv* OR afghan* OR Thai* or North Korea* OR myanmar OR Timor-Leste
4. Mental health context

anxi* OR depress* OR (mood AND disorder) OR (mental AND health) OR (mental AND disorder) OR (mental AND illness) or suicid* OR (psychiatric AND disorder) OR (psychological AND disorder*) or (psychological AND illness*) OR (psychological AND problem*) OR (psychiatric AND disorder*) OR (psychiatric AND illness*) OR (psychiatric AND problem*)