INPLASY PROTOCOL

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Mental Health Services International Students can Access in UK Higher Education: an Evidence and Gap Map (EGM)

Wang, ZS[1]; Blackmore, C[2]; Weich, S[3].

Review question / Objective: a. Question · What kind of mental health services that international students can access in UK higher education? b. Objectives · to systematically search and identify the range of mental health services that international students in UK higher education can access. · to gather and display evidence on health care and services to maintain or enhance mental health conditions of mental health services in the UK. · to collect clusters of existing evidence and gaps to inform the potential literature review design.

Background: Mental health is already a significant global issue in higher education (Alonso et al., 2018; Auerbach et al., 2016a, 2016b; Mortier et al., 2018). As the WHO argued, there is no health without mental health (DH, 2011; Prince et al., 2007; WHO, 2018, 2021, 2022a). Higher education students who are far away from home, lack social support and face language and cultural differences are the vulnerable populations in terms of mental health compared with home students (Blackmore et al., 2019; Forbes-Mewett & Sawyer, 2016, 2019; Minutillo et al., 2020; Sachpasidi & Georgiadou, 2018; Sherry et al., 2010). As a critical industry, UK higher education has the second-largest group of international higher education students globally (Department for Education & Department for International Trade, 2021; QS, 2019; QS Enrolment Solutions, 2021; Universities UK, 2021a, 2021b). However, compared with home students, international students are less likely to use mental health services in UK higher education. Attention to the mental health conditions of international students in UK higher education has more possibility to be improved in this country (HESA, 2021; Orygen, 2020; Quinn, 2020).

INTRODUCTION

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Rationale: Mental health has been a server issue in UK higher education. However, international students' situations are more challenging than home students (Royal College of Psychiatrists, 2021; The British Psychological Society, 2020; Thorley, 2017). In addition, the COVID-19 pandemic takes a significant number of difficulties in mental health areas (O'Connor et al., 2021; Pfefferbaum & North, 2020; Usher et al.,

2020; WHO, 2022b). In this situation, offering effective mental health services to international students is noteworthy (Grubic et al., 2020; Lai et al., 2020; Wilczewski et al., 2021; Xiong et al., 2020). Though a bibliometric review suggested a growing demand for research topics on international students' mental health (Cao et al., 2021), there exists an absence of an overview of mental health services for international students in UK higher education. Nevertheless, according to a pre-search, there is no systematic review, an Evidence and Gap Map (EGM), or a typology study related to mental health services that international students can access in UK higher education. Therefore, this EGM aims to systematically identify and present the range of evidence about mental health services for international students in UK higher education.

METHODS

Strategy of data synthesis: According to the Campbell Guidance, the researcher should consult information specialists and discuss developing a comprehensive search strategy with supervisors and stakeholders (Kugley et al., 2017; White et al., 2020). Because PICO will not be applied to this EGM, the search strategy will follow the Campbell guidance "Searching for studies: a guide to information retrieval for Campbell systematic reviews" (Kugley et al., 2017). The information specialist (LS) supports the researcher's design and will pilot the evidence search. The search will be repeated several times for iteration to set the finalised strategy (White et al., 2020). The search strategy will be updated with the supervisors and stakeholders.

The search strategy will be designed with 'mental health interventions/service', 'international/oversea students', and 'the United Kingdom' as fundamental elements. The term of each component concept of the EGM scope will be enlarged to get variant search terms, including natural language and database-specific subject headings. Notably, under Campbell's guidance, references of highly cited studies will be checked for reference snowballing

to explore more relevant research (White et al., 2020).

Reporting the search process will follow the guidelines, including electronic databases, grey literature sources, hand search sources, and any other sources, such as reference lists or the internet. The reports also include search dates, language, or publication status restrictions, and if contacted individuals or organisations (Kugley et al., 2017). The main databases are listed as follows:

• Research-based literature
o Health and medical databases:
– Embase via Ovid
– CINAHL
– Cochrane Library
– NICE Evidence Search
– MedRxiv
o Psychological and social science databases:
– APA PsycInfo® via Ovid
– PsycArticles
– PsycINFO
– PsyArXiv
– Social Care Online
o Social science database:
– Applied Social Sciences Index & Abstracts (ASSIA)
– International Bibliography of the Social Sciences (IBSS)
– Social Science Premium Collection
– ERIC
– Public Information Online
• Grey Literature
o National and regional databases
– UK Data Service
– NHS Digital
– NIHR Open Data
– Health Data Research UK (HDR UK)
o Citation indexes
– Web of Science
o Dissertations and thesis databases
– ProQuest dissertations & thesis global
– British Library Electronic Thesis Online Service (EThOS)
– White Rose eThesis Online
o Grey literature databases
– Grey Matters
– Open Grey
– NIHR
– NICE
– NHS
– Higher Education Statistics Agency (HESA)
– UCAS
o Existing review and publication reference lists
– Cochrane Library Databases
– Campbell Collaboration
– 3ie Systematic Review Database
– EPPI Centre Evaluation Database of Education Research
o Web searching
– Google (www.google.com)
o Ongoing studies
– Campbell Collaboration
– Cochrane Collaboration
– PROSPERO.

Eligibility criteria: a. Settings The setting of the mental health services will include mental health services offered by both the public and private sectors. Besides, the Public Private Partnerships (PPP) programme is also included in the consideration (Department of Health & Social Care Healthcare UK et al., 2013).

b. Population
The population is defined as the international students in UK higher education who registered at UCAS. International students registered at other levels of education institutions (e.g., students at sixth form college for A-level) will be excluded.

c. Mental Health Service
Mental health services include interventions or treatments to maintain or enhance people's mental health status or behavioural disorders. As the conceptual framework, the mental health service will include but is not limited to promotion, prevention, treatment, and recovery interventions. Because the EGM is to explore what mental health services exist, the eligibility criteria will not set a clear scope of types of mental health services but set primary categories (APA, 2020; NHS, 2021).

d. Evidence Type
The evidence type is generally classified as no evidence, research evidence, and non-research evidence. The research evidence is based on the Integrated "5S" Levels of Organization of Evidence Pyramid, which is modified from Haynes's "5S" levels of organisation of evidence from healthcare

research (Haynes, 2006; University of Michigan Library, 2022). The modified pyramid includes types of research evidence to the biggest extent. The non-research evidence includes but is not limited to policy, legislation, regulations, and relevant reports.

e. Publication Period and Types

The EGM will include published and ongoing research without restriction on publish date and languages. One study may include more than one paper, and different papers from one study may focus on different topics of mental health services. Therefore, the number of research will be counted by papers but not studies (White et al.,2020).

Source of evidence screening and selection: a. Study Screen All kinds of evidence related to mental health services and international students in UK higher education will be included. The evidence will include both academic evidence (e.g. journal articles) and non-academic evidence (e.g. reports).

b. Study Selection

There will be two reviewers for screening and selection. Reviewers will screen titles and abstracts first, then screen for the full text. If there is any disagreement or uncertainty, reviewers will discuss it before handing it to the third party. EPPI-Reviewer Web will be applied for the research screen and selection. EPPI-Reviewer Web has a machine-learning function that reduces manual work by helping reviewers focus on the most relevant records first (Thomas et al., 2022).

Data management: There will be one reviewer for data extraction. EPPI-Reviewer Web (Thomas et al., 2022) will be adopted for data extraction and management. The codes in this EGM will include the fundamental characteristics, the details for the included publishments, and the confidence of the evidence. Due to the aim of EGM is to explore what kinds of mental health services and what types of evidence exist, the dimension and filter codes will not be decided in the protocol.

Reporting results / Analysis of the evidence: The priority this EGM will report is the mental health services and interventions all international students can access in the UK.

There are two primary dimensions in the 2D matrix: interventions/services (rows) and study types (columns). Evidence and research gaps will be shown in each cell of the map. The volume of the evidence will be displayed by bubble size, and traffic light colours will label the confidence of the research outcomes.

Except for the two primary dimensions, there are filters for the EGM. The filter will be designed but not limited to:

• Effectiveness

Interventions' effectiveness if there are systematic reviews.

• Confidence in study findings

Low, moderate, high.

• Ethnicity or domiciled countries

International students' original countries.

• Sampling regions

England, Scotland, Wales, Northern Ireland, or the whole United Kingdom.

• Study status

Completed study and ongoing study.

The qualified evidence will be selected and put in matched cells on the map. Meanwhile, gaps will naturally appear as empty cells on the map.

Presentation of the results: EPPI-Mapper will be applied to develop the visual presentation of the EGM (Digital Solution Foundry and EPPI-Centre, 2022). The map will be displayed on a webpage. The online map is intuitive, visual, and interactive, offering an overview of the existing evidence. People can request to see the evidence and gaps in some specific areas by choosing filters.

Language restriction: No restriction.

Country(ies) involved: The United Kingdom.

Other relevant information: Stakeholder Engagement The researcher will consult stakeholders during the entire process of conducting the EGM. The stakeholders for this EGM will include the supervisors, the information specialist, and the mental

health specialist. The stakeholders will engage in the framework design, the filter design, the search strategy build, the pilot search, and the pilot code.

Keywords: mental health service, international students, higher education, United Kingdom.

Contributions of each author:
Author 1 - Zaisheng Wang - Author 1 will work on building the search strategy, running the search, screening and selecting evidence and building the evidence and gap map.
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Author 2 - Chris Blackmore - Author 2 will screen and select the evidence simultaneously with Author 1. Besides, Autor 2 will also contribue interpretations after the map has been built for the attached report.
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Author 3 - Scott Weich - Author 3 will give suggestions when there is any disagreement or uncertainty between Author 1 and Author 2 during the evidence screen and selection. In addition, Autor 3 will also contribute interpretations after the map is built for the attachedreport.
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