Scoping review protocol on the health of sub-Saharan African migrants in the Asia-Pacific region

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ABSTRACT

Introduction Increasing economic opportunities have attracted people from sub-Saharan Africa to migrate to the Asia-Pacific region in the last two decades. The information on the health situation of these migrants is limited. We aim to assess scientific evidence on the health of sub-Saharan African migrants in the Asia-Pacific region using a scoping review.

Methods and analysis The review will be conducted according to the JBI guide on evidence synthesis, and the final results will be organised and reported in line with the Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for scoping reviews. Search strategies have been developed centred on population-concept-context elements including sub-Saharan Africa, Asia-Pacific, migration and health. A total of eight databases will be searched, including PubMed, Embase, Cumulative Index to Nursing and Allied Health Literature, ProQuest, Scopus, Web of Science, Wartiang and CNKI. Title and abstract screening and full-text screening will be conducted by two researchers independently. Data will be charted according to predesigned form.

Ethics and dissemination This study involves neither human participants nor unpublished secondary data. Institutional review board approval is therefore not required. Findings of this scoping review will be disseminated through publication in a peer-reviewed journal, through academic network and project report.

INTRODUCTION

Background African communities started to establish themselves in major Asia-Pacific cities including Guangzhou, Hong Kong, Seoul and Sydney. This population movement is unique compared with the African diaspora movement to European countries and migration within Africa. Movement from sub-Saharan Africa to the Asia-Pacific region is partly driven by international trade between the country of origin and the destination country. For example, in Guangzhou, African merchants purchase wholesale goods directly from manufacturers at low cost and then sell them through retail shops in African countries. Additionally, increased research and study opportunities have attracted scholars and students from sub-Saharan Africa to study or visit the Asia-Pacific region. Also, highly skilled professionals such as healthcare workers may choose to move to Asia-Pacific countries, particularly Australia, to seek better work condition and employment opportunities. Taken together, those migrants are potentially motivated to move by the pull factors as theorised by Lee in 1966. Previous ethnographic work also provided a rich account of the context and individuals' life stories to distinguish such south-to-south population mobility. Sub-Saharan African diaspora and its associated health topics have been extensively studied and summarised in receiving countries in Europe and the United States, but rarely reported in the Asia-Pacific region. A systematic examination of existing evidence on health related to migration from sub-Saharan Africa to the Asia-Pacific region demonstrated novelty and fills the gap as the Asia-Pacific countries prepare themselves for south-to-south migration.

The health situation of migrants remains debatable and in certain context even paradoxical. On the one hand, healthy immigrant effect asserted that migrants tend to be in good health and have better health outcomes. On the other hand, the concept of healthy immigrant effect is debatable and in certain context even paradoxical. This review will consider both English and Chinese language publications to capture available evidence.

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ This review will consider both English and Chinese language publications to capture available evidence.
⇒ The search will comprehensively consider literature from multiple disciplines such as public health, clinical medicine, international relations and other social sciences fields.
⇒ Study results will be rigorously reported according to the guideline “Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for scoping reviews”.
⇒ Since this review focuses primarily on scientific publications, relevant information from news reports, and other non-peer reviewed informal sources will not be included, which can be a potential limitation.
condition due to the positive health selection process through which healthier persons are more likely to move to places far from home.\textsuperscript{10-11} In the postmigration period, migrants of poorer health tend to return or move closer to their country of origin for more familiar environment, known as \textit{salmon bias} theory.\textsuperscript{12-13} Both theories contributed to a conclusion of the healthy profile of migrants. On the other hand, studies observed suboptimal health outcomes in lieu of mortality advantage among migrant groups in certain contexts.\textsuperscript{14-15} Little has hitherto been known about the health situation of migrants from sub-Saharan Africa to the Asia-Pacific region which warrants a systematic inquiry. With emerging migration trend from sub-Saharan Africa to the Asia-Pacific region, it is pivotal to summarise key interdisciplinary evidence on those migrants’ health.

Access to and utilisation of healthcare services among migrants are also crucial areas that call for a holistic investigation. Barriers to health services were prevalent according to a global systematic review synthesising 28 qualitative studies published in English or Spanish focusing on migrants primarily living in the United States.\textsuperscript{16} Concerning the Asia-Pacific region, several empirical studies have also reported barriers to health services among sub-Saharan African migrants living in Guangzhou and Melbourne.\textsuperscript{17-19} Furthermore, other elements such as nutrition, also fall under the umbrella of health and await clear answers when it comes to sub-Saharan African migrants in the Asia-Pacific region.

Health is a broad and complex topic—on which information includes empirical research, perspectives and reviews around health status, interaction with the health system, ethnomedicine and so forth. To map existing scholarly evidence and perspectives on what has been researched and discussed on the broad health topics of sub-Saharan African migrants in the Asia-Pacific region, a scoping review is urgently needed to gather key concepts, interaction with the health system, ethnomedicine and so forth. To map existing evidence broadly stemming from several fields and generated from heterogenous methodologies. In this case, a scoping review is a preferred methodology compared with systematic review which is commonly used to answer a narrowly defined question such as treatment effect of a particular intervention. Under this overarching study aim, the objectives of this review are to:

1. Identify the outcomes, indicators, concepts and perspectives related to the health of sub-Saharan African migrants in the Asia-Pacific region including but not limited to the following aspects:
   a. Interaction with health systems (services needs and demands, user experience, etc).
   b. Programmatic research (description or evaluation of existing health programmes).
   c. Ethnomedicine: practices, perspectives, comments and opinions.
   d. Epidemiology, surveillance and studies involving case report or focusing on specific diseases.

2. Discuss the knowledge gaps on the health of sub-Saharan African migrants in the Asia-Pacific region.

**Review questions and data output**

This review will address several research questions and provide various data output corresponding to each research question as described in table 1.

Among these research questions, the first one will address the scope of existing evidence on the health among sub-Saharan African migrants in the Asia-Pacific region. Questions 2–5 will help facilitate the understanding of the health situation, the healthcare services and programmes landscape, the comprehensiveness and breadth of existing evidence as well as the gap in research.

**METHODS AND ANALYSIS**

**Search strategies**

The search comprises three stages as suggested by the JBI guideline.\textsuperscript{20} First, we will carry out a targeted search in a selection of two databases (PubMed and CNKI) and select several key studies that are relevant to the broad topic. We will analyse the text words and keywords of those studies to derive a tentative list of search terms commonly used to specify the ‘Population-Concept-Context (PCC)’ components for the scoping review. Built on that list, we will search multiple databases to review their lexical trees (eg, Medical Subject Headings in PubMed) and develop the search terms. In the second stage, we will finalize the detailed search criteria for PubMed and adapt them to all included databases. As a last stage, we will search the reference list of included studies to look for other potentially relevant studies. Our protocol is registered on the Open Science Framework (access: https://osf.io/4xn-hg/?view_only=4e1daabaac5346839a071a8a261ba70c).

**Databases**

We will include a total of eight databases for this search. Among them, six are English databases including...
PubMed, EMBASE, Cumulative Index to Nursing and Allied Health Literature (CINAHL), ProQuest Dissertations and Theses, Scopus and Web of Science core (with Medline included). To capture publications in Chinese language, we will include two most commonly used databases, Wanfang database and CNKI for the search.

**Search terms**

Search strategies are developed using the principle of PCC based on the JBI recommendations for scoping review\(^2\), population being migrants from sub-Saharan African countries, concept being health and context being in the Asia-Pacific region. Search terms in English are first developed for PubMed as below and then adapted to the other five databases with necessary database-specific modifications (online supplemental appendix 1). Four search concepts were developed and linked between each other by the Boolean “AND” as follows:

- Search concept 1: country of origin/areas
- Search concept 2: destination countries/areas
- Search concept 3: migration
- Search concept 4: health

Search terms in Chinese are developed separately for Wanfang database and CNKI tailored to their distinct search functions. Search terms are listed in online supplemental appendix 2.

**Search limits**

No limit will be applied on publication language. To achieve a balance between comprehensiveness and reflecting the recent trend, years of publication will be limited to a range from the year of 2000 (inclusive) to the last search date and time. No filters for study type (review, trial, observational studies, etc) will be applied.

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**Grey literature**

Grey literature will be searched from clinical trial registration platforms (including clinicaltrials.gov and China Clinical Trial registries), preprints platforms (MedRxiv, BioRxiv, PsyArXiv, SocArXiv and Chinaxiv), working papers (Google Search and Google Scholar) and conference papers (Google Search and Google Scholar). Additionally, from the included studies, we will reach out the authors who were the first author and/or corresponding authors on two or more included studies and solicit information on unpublished studies on this topic.

We will also search beyond scientific databases and include relevant institutional and organisation reports from the following sources: the International Organization for Migration, WHO, United Nations Network on Migration and Migration Data Portal.

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**Study screening**

**Pilot screening**

Before starting the formal screening process, the review team will perform a pilot testing on a selection of 50 title/abstracts in English and 50 ones in Chinese. During the pilot process, the first three authors will screen those same abstracts in English and 50 ones in Chinese. During the pilot process, the first three authors will screen those same abstracts in two rounds, that is, title and abstract screening as well as full-text screening; discrepancies will be resolved through discussion. Consensus will be reached on all those pilot articles before the formal screening process begin.

**Screening procedures**

We will import all search results into EndNote X9. First, we will use EndNote to identify and remove search results that have the same authors, titles, publication year. Furthermore, we will manually sort the search results alphabetically by author names and by titles to identify the same abstracts that were submitted to different conferences and therefore
published by different journals; using the same strategies, we will also identify different publications from the same studies where interim analysis results were published first and later did the main publications. We will keep the more comprehensive and later publications from the same studies.

After deduplication, remaining search results will be uploaded to Covidence, an online platform that aids the process of systematic and scoping reviews. Study screening includes firstly title and abstract screening, and then full-text screening. Two reviewers will independently review titles and abstracts. When conflict occurs, a third reviewer will independently judge the study. If during-title and abstract screening it is impossible to determine whether that study contains relevant information, we will select ‘Maybe’ to examine further in the full-text step. Publications that have been deemed as ‘relevant’ or ‘maybe’ proceed to the full-text screening where full-text documents for each publication will be scrutinised by two reviewers independently. A third reviewer will serve as a referee when the decisions made by the initial two reviewers are inconsistent.

Inclusion criteria
Studies are eligible if they report or discuss on health-related topics of non-refugee sub-Saharan African migrants living in Asia-Pacific region. We chose to focus on non-refugee migrants because they have been understudied and may experience drastically different postmigration health issues compared with refugee populations. Studies will be included if they contain information on sub-Saharan African origin country (or countries), AND Asian-Pacific country (or countries) of arrival AND migration AND health. To further rule out irrelevant search results, we will apply the following exclusion criteria in screening (table 2).

<table>
<thead>
<tr>
<th>Exclusion categories</th>
<th>Exclusion examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wrong population</td>
<td>1. Non-human studies, such as migrating birds/strain of pathogens/genetic traits.</td>
</tr>
<tr>
<td></td>
<td>2. Participants are Chinese migrants residing in Africa.</td>
</tr>
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<td></td>
<td>3. Participants are solely refugees, displaced population, human trafficking victims and migrants in humanitarian settings.</td>
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<td></td>
<td>4. Participants were born and grew up in the Asia-Pacific region to immigrant parents from sub-Saharan countries or to a naturalised citizen of the destination country; they themselves have not experienced migration.</td>
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<td></td>
<td>5. Studies that mentioned origin and destination countries of interest but have not mentioned migrants (eg, international/global studies).</td>
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<td>Wrong destination</td>
<td>1. Study destination countries are not in Asia-Pacific. For example, studies where migration destinations are in Europe (eg, Norway, Italy), Middle East (eg, Israel), other African countries (eg, South Africa), North America (USA, Canada), South Asia (India, Bangladesh), etc.</td>
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<td></td>
<td>2. Study that focus solely on internal migrants within countries.</td>
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<td>Non-health related</td>
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<td></td>
<td>2. Studies that report solely biological or genetic characteristics of migratory groups from the perspective of physical anthropology.</td>
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<td>3. Studies that report solely the phenomenon of health professionals emigrating.</td>
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<td>Others</td>
<td>1. Studies that lack any of the four key concepts (migration, health, sub-Saharan Africa, Asia-Pacific).</td>
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<tr>
<td></td>
<td>2. Conference abstract book that is not centred on migration and health.</td>
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Data charting
Data charting will be completed using a predesigned table to gather an overall descriptive account of available evidence on health among migrants from sub-Saharan African countries living in the Asia-Pacific region. Study characteristics will be summarised including: authors, year of publication, country of origin, destination country, information source, study type, study aims/objectives, population types (eg, subcategories including students, labour workers, merchants, etc), sample size, methodology/methods, key outcomes and key conclusions (see the table column headings in online supplemental appendix 3). A total of five publications will be used for pilot data charting to ensure consistency between reviewers. Once the reviewers are familiar about the information to be charted, the remaining studies will be charted by one reviewer and critically examined by a second reviewer. When conflict occurs, a third reviewer will join the discussion and make a joint final decision.

If information is concentrated in selected areas, for example, ethnomedicine practices, then a secondary data charting will be conducted within that type, and key results will be described qualitatively.

Presentation of results
Findings will be presented in a tabular form (see table 3) in response to research questions listed in table 1.

Figures, such as bubble chart and flow charts will be used to aid the illustration of findings from this scoping review.

Patient and public involvement
Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

Table 2 Exclusion criteria and examples for study screening

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Table 3  Presentation of results based on preplanned parameters

<table>
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<th>Parameter</th>
<th>Results</th>
</tr>
</thead>
</table>
| Numbers of publication by information source | 1. Total number of included studies  
3. Number of research articles  
4. Number of comments  
5. Number of published proposals/protocols  
6. Number of other types of information source |
| Aims/Objectives | 1. Summarise aims and objectives of include studies  
2. Enumerate the number of sources in each category |
| Type of study | 1. Review  
2. Cross-sectional studies  
3. Longitudinal studies  
4. Case report  
5. Other types of observational studies  
6. Trials/Quasi-experimental studies  
7. Qualitative studies  
8. Mixed-methods studies  
9. Other |
| Population identified | By region of origin 1. East Africa  
2. Central Africa  
3. Southern Africa  
4. Western Africa |
| By destination country | 1. Australia  
2. China  
3. Japan  
4. New Zealand  
5. Other |
| By age | 1. Minors (aged 18 years)  
2. Adults (aged >18 years) |
| By migration purpose | 1. Business/Trade  
2. Public services/Diplomacy  
3. Employment/Labour work  
4. unspecified  
5. Education/Research exchange  
6. Leisure travel  
7. Visiting family  
8. Unknown  
9. Other |
| Study implementation | 1. Sampling and recruitment strategies  
2. Data collection format (offline/online)  
3. Theoretical lenses adopted  
4. Overarching methodologies adopted |
| Health domains | 1. Interaction with health systems (services needs and demands, user experience, etc)  
2. Programmatic research (description or evaluation of existing programs)  
3. Cultural medicine practices/transnational perspectives, comments and opinions  
4. Epidemiology, surveillance and studies that focus on health issues  
5. Other |
| Disease/illness specialty | 1. Infectious diseases  
2. Non-communicable diseases  
3. Mental health/Quality of life  
4. Reproductive health  
5. Other |

ETHICS AND DISSEMINATION

This study involves neither human participants nor unpublished secondary data. Institutional review board approval is therefore not required. Findings of this scoping review will be disseminated through publication in a peer-reviewed journal, through academic network and project report.

REFERENCES

13. Dunlavy A, Cederström A, Katikireddi SV, et al. Investigating the salmon bias effect among international immigrants in...