[Applicant name redacted]

Research project proposal

Title

Estimating the global burden of labour exploitation and its impact on health of migrants: a critical social epidemiological approach to inform policy and practice

Background

The 2030 Sustainable Development Agenda testifies the international community's commitment to ensuring healthy lives and promoting decent work for all. However, in the face of an ongoing COVID-19 pandemic, economic disruptions have compelled people in need of livelihood to accept exploitative employment terms and conditions, particularly migrants who are at higher risk of labour exploitation. Labour exploitation of migrants is ubiquitous in high-income countries (HICs) and low-and-middle income countries (LMICs). Globally, an estimated 24.9 million people are in forced labour, of which 23% are migrants.[1] The vulnerability of migrants to labour exploitation is influenced by both personal factors (such as age and gender) as well as situational factors (such as risk environments across the migration journey and national legislation). Undocumented migrants are especially vulnerable to long working hours, low wages, and dangerous and unhealthy working environments, for fear of reprisals or expulsion from employers on whom their residence status may be dependent upon. They may also be unable to access health services due to their legal status and be subject to founded or unfounded worries of detention if identified by authorities.

There is growing evidence on the harmful health effects of labour exploitation in migrants. Multi-country research showed that labour exploitation among migrants in the sectors of informal textile, construction, artisanal and gold mining is associated with a range of adverse health outcomes, including respiratory diseases, parasitic diseases, mental disorders, occupational injuries and death.[2] In terms of Global Burden of Disease (GBD), WHO/ILO estimated that in 2016 a total of 1.9 million deaths and 89.7 million disability-adjusted life years (DALYs) were attributable to 41 pairs of occupational risk factors and health outcomes.[3] However, this GBD study was not disaggregated by migration status. Also, its analysis was limited to existing quantitative data and health outcomes did not cover communicable diseases. To date, there is no global estimate on the overall health burden of labour exploitation among migrant workers. Noting the limitations of a traditionally legally driven approach towards addressing and preventing labour exploitation, the role of global public health as an alternative and more inclusive approach is increasingly being recognized.[4] Thus there is a need to generate global, regional, and national estimates of the health burden of labour exploitation in migrants to guide policy and interventions from a public health preventive lens.

In order to generate meaningful GBD estimates on labour exploitation to inform policy and practice, two important research gaps must be addressed, namely the need for methodological innovation and for an explanatory framework capturing multi-level causal pathways.[5] On the former, recent literature in social epidemiology has identified the limitations of traditional epidemiological approaches in studying macrosocial determinants of health, including labour exploitation, in which data beyond individual-level health outcomes are required but often absent. Methodological innovation adopting a critical realist perspective is needed to incorporate amendments to existing quantitative methods, such as using qualitative explanatory narratives and counter-narratives to complement the GBD approach. On the latter, terminologies and concepts around labour exploitation and health remain varied and sometimes contradictory. To move from "problem-based epidemiology" towards "solution-

based epidemiology" in order to generate evidence conducive to interventions, it is necessary to understand the causal relationships and interlinkages between macrosocial determinants and health outcomes. Moreover, commonly used definitions of labour exploitation were originally developed for legal purposes and may not be best suited for public health. There is thus a need to develop key definitions for exploitation and health, as well as an explanatory framework to capture how micro-, meso- and macro-level factors influence exploitation and health along the migration journey.

Aim and objectives

The aim of this project is to generate critical evidence on the health impacts of labour exploitation in migrants to inform policy and practice. Based on the research gaps identified above, the objectives are thus threefold:

1. *From an epidemiological perspective,* to estimate the global, regional and national burden of disease of labour exploitation among migrants;
2. *From a methodological perspective,* to critically adopt and adapt the GBD approach in studying macrosocial determinants of health and to suggest methodological improvements; and
3. *From a policy perspective,* to propose key definitions for labour exploitation and to develop a multi-level causal framework elucidating how labour exploitation influences mortality and morbidity in migrants.

Methods

Following from the three objectives described above, this research project will adopt a five-stage process subject to ethical approval from relevant authorities:

Stage 1 – Systematic review

A systematic review will be conducted to review the existing literature on the global, regional, and national burden of labour exploitation among migrants. A Critical Interpretive Synthesis (CIS) will be adopted to maintain a critical lens of reflexivity and to remain open to types of literature, including quantitative research, qualitative research, theoretical research, and grey literature (research objective 2). A protocol will be developed in line with PRISMA-P and will be registered with PROSPERO. Broad search terms for labour exploitation and health outcomes will be used to ensure all relevant data are captured, including prevalence of labour exploitation and relative risks on morbidity and mortality. At least four bibliographic databases will be used (e.g. Medline, EMBASE, Scopus, Web of Science) and websites of relevant entities (e.g. WHO, ILO, IOM, European Commission) will also be searched. Reference lists of studies that meet the inclusion criteria will be further hand searched to identify additional literature.

Stage 2 – Quantitative cross-sectional survey

Informed by the Systematic Review in Stage 1, a multi-country questionnaire survey tool will be developed to fill in any important gaps in the prevalence of labour exploitation as well as to capture any additional health outcomes that have not been identified. This is based on the GBD guiding principle that an uncertain estimate, even when data are sparse or not available, is preferable to no estimate because no estimate is often taken to mean no health loss from that condition. The study population shall be labour migrants, including undocumented and irregular migrants, working in key sectors (e.g. agriculture, construction). A digital tool will first be developed in English, then translated to other languages. The tool will be piloted and back-translated to ensure validity and reliability. Prevalences will be reported with 95%CI and data will be analysed using Stata.

Stage 3 – Qualitative in-depth interviews

Informed by the Systematic Review and survey in Stages 1-2, qualitative in-depth interviews will be conducted to explore the experience and views of labour migrants on labour exploitation and health. Qualitative data generated shall provide narrative and counter-narrative sketches to the GBD findings in later stages (research objective 2). Purposive sampling will be used to capture the experience of migrants from a wide range of factors (e.g. country income level, sector of work, gender, age). A semi-structured interview guide will be developed and piloted. Interpreters will be recruited and trained to facilitate interviews not conducted in English or Chinese. Interviews will be voice recorded and transcribed ad verbatim. A codebook will be developed to guide the thematic analysis using NVivo.

Stage 4 – Compilation of prevalence and risk estimates

Based on data collected from the previous stages, estimates of the global, regional, and national prevalence of labour exploitation as well as risk estimates on mortality and morbidity will be compiled. Additional datasets will be included as appropriate (e.g. ILO Labour Force Surveys, Child Labour Surveys, Forced Labour Surveys; IOM Human Trafficking Survivor Database, and routine surveillance data). Access to these datasets has been confirmed through previous and ongoing work by the supervisors with ILO, IOM, WHO and ECDC, as well as with Prof M. Norredam (University of Copenhagen) for access to national registries on the health status of labour migrants. Statistical analysis will include performing meta-analysis using random-effects model. Pooled prevalences and risk estimates will be reported with 95%CI and forest plots. Data will be analysed using Stata.

Stage 5 – GBD modelling

Consolidating data from all previous stages, a multi-level causal framework elucidating the inter-relationships between labour exploitation and health along the migration journey will be developed (research objective 3). Based on this framework, estimates of the global, regional and national burden of labour exploitation on morbidity and mortality will be generated drawing on modelling tools used to measure GBD (e.g. DisMod) to estimate population attributable fractions, years of life lost due to premature mortality (YLLs), and years lived with disability (YLDs). Comparative risk assessment (CRA) approach will be followed in line with the Guidelines for Accurate and Transparent Health Estimates Reporting (GATHER) when reporting global burden estimates as per best practice. Results will be reported as number of DALYs and deaths, along with 95%CIs (research objective 1). Findings will also be synthesized with narrative and counter-narrative sketches (research objective 2).
In addition, to enhance accountability and inclusivity of research findings, a technical advisory group comprising of members from WHO, ILO, IOM, UNICEF, subject experts from HICs and LMICs, and most importantly, individuals with personal experience of labour exploitation will be set up and consulted at each stage of the research process. Research findings, particularly the proposed key definitions of labour exploitation (research objective 3), will be presented to the technical advisory group for discussion. Potential disagreements on definitions shall be resolved through the Delphi method.

Research implications and impact

This research addresses a relatively understudied determinant of individual and global health. Corresponding to the three objectives of the research project: epidemiologically, the study shall produce the first global, regional, and national estimates of the health burden of labour exploitation in migrants. This would lay the groundwork for further temporal and geographical comparisons, such as future research in the countries or regions with higher burdens of morbidity and/or mortality. Methodologically, this project could stimulate discussion in the field of social epidemiology through using critical innovative methods in studying macrosocial

determinants of health. Based on lessons drawn from this research experience, future research should continue to challenge and improve existing epidemiological methods to capture the complexity of upstream health determinants. Policy-wise, this study shall generate much needed evidence to inform the planning and budgeting for the health needs of migrants vulnerable to labour exploitation. At a systems level, findings could contribute towards policy and guidance development by states and international entities (e.g. WHO, ILO, IOM) to prevent labour exploitation as well as contribute towards SDG Goals 3 and 8. At an individual level, findings could raise awareness among healthcare professionals on their potential roles in tackling labour exploitation among migrants from a public health preventive angle.

Previous experience and future work

I am confident that my motivation, academic training, and work experience has prepared me very well for this research project. I have always aspired to become an applied social epidemiologist in which well conducted research could give a voice to those with less power and which contributes towards positive social change. Upon completion of my [programme deleted] training, I have pursued a [programme deleted]. My thesis was a qualitative study based on in-depth interviews on [applicant-specific information deleted]. In order to sharpen my quantitative skills in epidemiology, I have further pursued [deleted]. My thesis was a quantitative study based on secondary analysis of large longitudinal datasets on [applicant-specific information deleted]. I have worked [applicant-specific detailed examples deleted] in the area of health equity and policy. I have frontline experience working with migrants, including refugees and asylum seekers, in several countries for health programs and research. I have also coordinated a mixed methods study funded by [deleted] on [deleted] healthcare access barriers of low-income workers in [deleted]. My experience at [deleted] government and [deleted] in [deleted]o enabled me to appreciate the importance of quality research in facilitating policymaking at both local and international levels. Lastly, as a migrant myself, I understand the imperative to leave one's home country, often not completely voluntarily, in search for better work and life opportunities. Hence I am deeply committed to pursuing social epidemiological research on migration and health with the aim of making real changes in people's lives.

References

1. International Labour Organization. 2017. Global estimates of modern slavery: Forced labour and forced marriage. Available at https://www.ilo.org/global/publications/books/WCMS_575479/lang--en/index.htm. Accessed on 19 January 2022.
2. Buller AM, Vaca V, Stoklosa H, Borland R, Zimmerman C. 2015. Labour exploitation, trafficking and migrant health: Multi-country findings on the health risks and consequences of migrant and trafficked workers. International Organization for Migration and London School of Hygiene and & Tropical Medicine. Available at https://publications.iom.int/books/labour-exploitation-trafficking-and-migrant-health-multi-country-findingshealth-risks-and-0. Accessed on 19 January 2022.
3. World Health Organization, International Labour Organization. 2021. WHO/ILO joint estimates of the workrelated burden of disease and injury, 2000-2016: global monitoring report. Available at https://www.who.int/publications/i/item/9789240034945. Accessed on 19 January 2022.
4. Zimmerman C, Kiss L. 2017. Human trafficking and exploitation: A global health concern. PLoS Med 14(11): e1002437.
5. O'Campo P, Dunn JR. 2012. Rethinking social epidemiology: Towards a science of change. Dordrecht: Springer.

TOTAL WORD COUNT = 2163
(Excludes headers)