



## MAGNITUDE AND DETERMINANTS OF MENTAL ILLNESSES AMONG THE PRISONERS IN ASIA: A SYSTEMATIC REVIEW AND META-ANALYSIS PROTOCOL

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### ABSTRACT

**Objective:** This systematic review aims to assess the Magnitude and determinants of mental illnesses among the prisoners in Asian region. **Methods:** The following database will be considered- Medline, Epistemonikos, PsycINFO, web of science and Embase to access the relevant studies. Cross-sectional and cohort studies which aims at assessing the prevalence and associated factors of mental illness among prisoners in Asia will be included. Randomised controlled trials, qualitative studies, systematic reviews, policy papers, commentaries, opinions, case studies, case series or studies with methodological issues will be excluded. Articles selected after secondary screening will be subjected to data extraction using a pre-structured sheet. All eligible articles will be critically appraised to assess their methodological rigor using STROBE checklist. The descriptive information will be synthesised for each outcome of the included studies. If homogenous data will be found, pooled prevalence will be calculated. **Discussion:** The findings of the review will be an eye opener for policy makers, healthcare practitioners and scientists to develop appropriate and feasible mental health interventions for improving the mental health of prisoners detained in prisons of Asian countries.

### KEYWORDS :

#### INTRODUCTION

Mental illness is a unknown devil which has engulfed the society. It impacts a person's existence. The severity may also result in alteration of thoughts, perception and individual belief of a person (Malla A.et.al). Prison population primarily comprises of one of the most marginalised and ostracised groups in society. After being convicted of serious crimes, the perpetrators face a new challenge of adjusting to life in prison for an extended period of time. These adjustments to a totally different environment at times are overwhelming which may affect the mental health of incarcerated individuals. Despite of social density in larger prisons, the extremities of social density are found to be associated with poorer mental health. (J Walker) Statistics shows that over ten million people are imprisoned around the world and this number is increasing at a rate of about one million every ten years (Fazel S., et al). Nevertheless, the judicial system itself has been overloaded due to the increasing incidence of multiple psychiatric disorders. Literatures found that prisoners have higher rates of psychiatric disorders than the rest of the population which include conditions like psychosis, depression, personality disorder, and substance abuse, all of which are possible causes for higher suicide rates, premature death before release and re-offending rates.

A systematic review examined severe psychiatric morbidity in 33,588 inmates from 24 countries and discovered that major depression and psychosis were prevalent in 14.1 and 3.9 percent of female inmates, respectively, and 10.2 and 3.6 percent of male inmates (Fazel S., et al). The Inmates suffering from mental illnesses are more likely to get involved in violence and law infringements; especially those afflicted from psychotic or depressive symptoms (Martin MS, et al). Moreover, Correctional systems are unable to provide adequate and timely mental health services due to budget and staffing constraints, resulting in a large population of mentally ill inmates left untreated (Prins SJ., et al). A systematic review of 62 surveys conducted among 12 countries has determined the prevalence of mental disorders among prisoners in a global context and the meta-analysis found geographical variations

with elevated prevalence of mental disorders among the prisoners of south East Asian region as compared to other regions (Baranyi, G., et al.).

Asia, the largest global continent, has a diverse range of legal systems, and as a result, crime rates also vary greatly among the countries that comprise the region. With over 1.7 million prisoners in 2020, China had by far the most of any Asian country or region. India came in second with around 466 thousand detainees, followed by Bhutan with only 1.12 thousand inmates. (Statistics, 2020) Although primary studies have been conducted in these countries to assess the prevalence of mental disorders among inmates, there is no aggregate data available on burden of mental illness in Asian continent. Various systematic reviews have been conducted at global level and evidence on psychiatric morbidity among inmates is almost solely focused on research undertaken in Western countries, and it is ambiguous if the findings of these studies can be applied to other settings. The current systematic review aims to contribute to the advancement of existing knowledge by being more comprehensive and restrictive than previous studies on the prevalence and determinants of mental illness among Asian prison inmates.

#### Purpose Of The Review

This systematic review will attempt to answer the following key questions:

1. What is the magnitude of common mental illnesses among the prisoners in Asia?
2. What are the determinants/factors associated with mental illness among the prisoners in Asia?
3. What are the potential opportunities for improving the mental health of prisoners in Asia?

#### Methodology

##### Protocol

The methodology for this systematic review has been built in

accordance with the recommendations of the Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols (PRISMA-P) (Moher, D). PRISMA checklist includes 27-item designed to aid in the development and reporting of rigorous systematic review protocols. The protocol of our systematic review has been already registered in the International Prospective Register of Systematic Review (PROSPERO) We have attached the PRISMA-P document (additional file).

### Searches

The published studies on assessing the prevalence of common mental illnesses among prisoners from Asia will be searched and included in the study. The following database will be considered during the course of this review- Medline, Epistemonikos, PsycINFO, web of science and Embase. The search will be conducted with the key terms like: ("Prevalence OR epidemiology OR magnitude OR burden OR incidence) AND ( "mental illness" OR "mental disorders" OR "Psychiatric morbidity" OR "Psychiatric disorders" OR "Depression" OR "Anxiety" OR "Suicidal tendencies") AND (prisoner's OR inmates OR detainees OR incarcerated) AND (factor OR risk OR "risk factor" OR determinant) AND ( Asia). Articles to be included in this review will be searched by titles, abstracts, key words and summaries. Moreover, reference list of all articles will be cross-checked to retrieve potentially relevant articles. The studies carried out from inception till June 30<sup>th</sup> 2021 will be included in the analysis.

### Inclusion and Exclusion criteria

#### Study Design

Studies will be restricted on the basis of study design. Primary studies such as Cross-sectional and cohort studies which aims at assessing the prevalence and associated factors of mental illness among prisoners in Asia will be included. Articles such as systematic reviews, policy papers, commentaries, opinions, case studies, case series or studies with methodological issues will be excluded. Randomised controlled trials and qualitative studies will be excluded because these research designs are methodologically inappropriate for the type of research questions to be addressed.

#### Population:-

The population of interest will be prisoners including those on remand or sentenced or both, regardless of age or gender, detained in Prisons of Asia.

#### Report Characteristics:

We will confine our search strategy to peer-reviewed articles. There will be no language restraints on searches. The studies will be geographically limited to articles published in Asian countries.

#### Main Outcomes

- Prevalence and severity of mental illnesses among prisoners of Asia
- Associated determinants of mental illness among prisoners of Asia

#### Additional Outcomes

We will identify the Potential Opportunities for improving mental well-being of prisoners.

#### Data Extraction (Selection & Coding)

To pull information from the included studies, a standard, pre-piloted tool will be used by two authors independently. The data will be extracted under the following parameters- author name, publication year, study design, study setting, sample size, assessment tool, analysis method, result and recommendation. The extracted information will be further verified by the other reviewers for identifying the missing information and discrepancies will be resolved through mutual understanding and discussion among authors. All the authors will have substantial contribution in the systematic review.

#### Risk Of Bias (Quality) Assessment

All eligible articles will be critically appraised to assess their methodological rigor conducted by two authors independently using standardized quality appraisal tools. In this study, we will use measurement tool called STROBE checklist (Knottnerus A).

Publication bias will be assessed using Cochrane Risk of Bias assessment (ROB) tool. This systematic review will be written entirely in accordance with the PRISMA-P Checklist.

#### Strategy For Data Synthesis

The descriptive information will be synthesised for each outcome of

the included studies. If sufficient comparable estimates are found, pooled prevalence will be calculated for mental health outcomes in the countries of Asia.

#### Analysis Of Subgroups Or Subsets

The feasibility of conducting sensitivity and subgroup analysis will be explored in order to investigate potential sources of heterogeneity and inconsistency in the selected articles. We will assess the Heterogeneity between the studies using both Cochrane's Q statistic and the I<sup>2</sup> statistics. A value above 50% on I<sup>2</sup> statistics will indicate the presence of heterogeneity between studies. If heterogeneity exists in the study, subgroup analyses, sensitivity analysis, and Meta-regression will be performed to explore heterogeneity sources.

#### DISCUSSION:

This systematic review will serve as a first milestone in long -term study of common mental illnesses among Asian prisoners. This review aims to investigate the prevalence and risk factors/causes of common mental disorders among the prisoners of Asian region. The findings of the review will be an eye opener for policy makers, healthcare practitioners and scientists to develop appropriate and feasible mental health interventions for improving the mental health of prisoners detained in prisons of Asian countries.

#### Conflict Of Interest - None

#### Funding Source- None

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