

## Review of: "Internal migration and mental disorders among the adult population: a community-based cross-sectional study in Nepal"

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Potential competing interests: No potential competing interests to declare.

The manuscript aims to study whether internal migration is associated with mental health problems among the Nepali population using data from a representative national survey. The manuscript, however, has many problems and limitations in presentation and methodology. Scientific papers need to be clear and succinct. However, this manuscript includes many non-relevant details that may only confuse the reader, while other important details are missing--especially in the methodology.

Major points:

Introduction:

The introduction includes irrelevant information that may confuse the reader. For example, issues of persecution, violence, substance use, etc., were mentioned several times as reasons for migration, and issues of discrimination, isolation, and social fabric disruption were mentioned as problems facing the migrants in their new location—giving the impression that these factors will be assessed, or at least measured, in the study, but none was. The introduction seems to confuse "forced migration" with "migration".

## Methods:

Again, many details that are irrelevant to the presented study were included. For example, the description of the geographic and administrative composition of Nepal, in a paper about migration, gives the impression that these details will be used in the sampling, analysis, and/or interpretation of the results (e.g., "do migrants from Terai differ from those from the Himalaya in mental health problems?"). Another example is stating the difference in literacy among men and women in the general population but not exploring the same variable in the study sample to compare it between the sample and the general population as a way to assess the representativeness of the sample.

The sampling method is not clear and lacks many important details. Examples include: the 14 strata are based on what variable? And what is the PSU; is it a neighborhood, a district, etc.? Also, the description of the main outcome measurement is not clear. Was it a single question about both depression and anxiety with a (yes/no) answer choice, or with four answer choices (no; yes-depression; yes-anxiety, and yes-both)?



The definition of the main exposure variable is not clear. It sounds like a change of address rather than an indicator of migration status (as there is no description of whether the current residence is within the same city, the village, or the place of birth). Also, Table 1 seems to indicate that the time range for a participant to be defined as a migrant is 0-48 years, while the age limit for inclusion in the study is 49 years. This means that many of the "migrants" may have spent most of their lives in their current residences.

There are many definitions that seem to be subjective without any justification provided. For example, why was the age of inclusion limited to 15-49 years? And why was a family of four considered "core," while a family of five is considered "extended"?

## Results and discussion:

The interpretation of the findings is inaccurate and misleading. Clearly confounded results (bivariable analysis) should not be presented as "evidence." An outstanding example is the statement "The present study showed that migrants were less likely (aOR=0.98, 0.78-1.22, p=0.86) to have a mental disorder than the original participants, which is similar to the results of a study conducted in China [5]; however, the present study results were not found to be statistically significant." With such a large P and a big sample size, the conclusion should be exactly the opposite, i.e., "There is NO association of migrant status with mental health."

A minor point: The manuscript needs editing for grammar and clarity. For example, do not start a sentence with digits, and change "bivariate" and "multivariate" to "bivariable" and "multivariable."

Thank you.