Asian Journal of Psychiatry 32 (2018) 20–26

Contents lists available at ScienceDirect

Asian Journal of Psychiatry

journal homepage: www.elsevier.com/locate/ajp

Suicide and self harm in Nepal: A scoping review

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ARTICLE INFO

Keywords:
Mental Health Nepal
Suicide
Self harm
Asia
Nepal
Suicide prevention
Suicide research
Prevention strategies

ABSTRACT

Background: Suicide and self harm behavior has become a major public health issue in recent years in Nepal. This small south Asian country was ranked 7th by suicide rate globally by the 2014 World Health Organization report with an estimated 6,840 suicides annually, or 24.9 suicides per 100,000 people. We decided to explore the epidemiology of suicidal behaviour and self harm, modes of attempt, associated risk factors and trends in specific population.

Methodology: Two researchers independently reviewed 47 studies published in the US National Library of Medicine's PubMed electronic Database and Google Scholar till December 2016. Finally, twenty articles meeting the objective were included. This article summarizes findings on epidemiology of suicidal behavior, associated patterns, risk factors and trend in specific population in Nepal.

Results: Most of the data available till date are hospital based and either cross-sectional or retrospective. Some of the studies have relied on mortality statistics whereas few have done community based screening. Some of the key findings include higher rate among women and younger age group, a rising trend among specific groups such as marginalized, migrant workers and disaster affected population. The studies also show role of mental illness, predominantly mood disorders and psycho-social factors such as interpersonal or marital conflicts and socio-economic issues in triggering suicide and self harm behavior.

Conclusion: Overall, the studies provide satisfactory information about the burden of suicide in Nepal. Some of the limitations include discrepancy in suicide reporting, lack of longitudinal follow up and qualitative studies and absence of studies on preventive aspects. Further, more research is warranted in this area not only at the assessment level but also at an intervention level. Several challenges such as poor distribution of mental health resources, social attitude towards mental illness and suicide in particular need to be addressed.

1. Introduction

Globally, over 800,000 people die due to suicide every year making it the second leading cause of death in 15–29-year-olds. There are indications that for each adult who died of suicide there may have been more than 20 others attempting suicide. The low- and middle-income countries bear an estimated 75% of all global suicide burden. The South-East Asia Region of the World Health Organization (WHO SEARO) accounts for 39% of global suicides (WHO, 2014). It has also been highlighted that, due to lack of high quality data and national suicide surveillance systems in most of these countries, reports are likely to underestimate the actual burden of suicide (Jordans et al., 2014). In high-income countries (Europe and US), mental disorders are present in up to 90% of the cases of mortality due to suicide depression being the most common diagnosis (Conner et al., 2001). However, mental disorders seem to be less prevalent among those who die by suicide in Asian countries, and acute life stresses related to socio-economic and cultural issues have been shown to play a greater role in suicide than they do in Western countries (Radhakrishnan and Andrade, 2012; Chen et al., 2011).

In South Asia, suicide is characterized by higher use of organophosphate insecticides, larger numbers of married women, fewer elderly subjects, and role of causative factors such as interpersonal relationship problems and life events (Khan, 2002). Despite the huge burden, there is less emphasis on suicide in these countries due to lack of resources and competing priorities. Other factors like cultural influences, religious sanctions, stigmatization of the mentally ill, political imperatives, and socio-economic factors have also resulted in indifference towards mental health and its suicide. As a result, the magnitude of the problem is unknown in some Asian countries and although there are some highlights in terms of preventive initiatives, overall efforts are uncoordinated, under-resourced, and generally unevaluated

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https://doi.org/10.1016/j.ajp.2017.11.018
Received 4 May 2017; Received in revised form 19 July 2017; Accepted 27 November 2017

(Vijayakumar et al., 2005).

Nepal is a multi-ethnic landlocked county in South Asia situated between India and China. It has a population of 28.5 million with the majority (86%) living in rural areas It is geographically divided into seventy five districts, five development regions and fourteen zones. Nepal has been a victim of frequent political conflicts and natural disasters over the last twenty years, which has diverted the attention of the politically unstable governments away from important issues such as mental health. Unfortunately, delivery of mental health services in facing several hurdles such as limited treatment settings, lesser human resources mainly concentrated at cities and private sectors 60 in mental health (120 psychiatrists, 25 psychiatrist nurses;16 clinical psychologists); limited awareness in the public due to poor mental health education, availability of fewer psychotropics at primary care level and limited training of community health workers. At present, government is spending is less than 1% of its total healthcare budget on mental health. This has led to a huge treatment gap with over 90 percent of the population who needs mental health services having no access to treatment (Luitel et al., 2015; Regmi et al., 2004)

Amidst growing coverage of high profile suicide cases in the media, suicide has recently received a wider attention as a potential public health problem in Nepal and is frequently labelled as the silent or the hidden epidemic (Cousins, 2016). More recently, WHO had estimated an age-standardized suicide rate for Nepal in 2012, ranking it 7th in the world at 24.9 per 100,000 (WHO, 2014). Hence, understanding the various aspects of suicide and self harm behaviour in Nepal is useful to devise effective suicide prevention strategies for this country.

In this article, we have done a scoping review (Grant and Booth, 2009) of published studies on suicide and self harm behaviour and different associated factors in Nepal with an aim to discuss the existing literature and provide a road map for developing appropriate suicide prevention strategies.

2. Methodology

We searched the US National Library of Medicine's PubMed electronic Database and Google Scholar in January 2017, using the title and abstract search terms: “suicide in Nepal”, “Deliberate self harm in Nepal”, “risk factors for suicide in Nepal” “Suicide prevention in Nepal”. The search was conducted independently by the two researchers. Studies retrieved from the databases were selected after reading the abstracts and titles, following a calibration exercise with 10% of the studies read by two independent reviewers to determine inter examiner agreement (Kappa: 0.68 to 0.97). Disagreements were resolved by consensus.

The search yielded total 47 abstracts (Fig. 1). We chose 30 publications based on the relevance of their title and further filtered them based on inclusion and exclusion criteria. However, sample size, methodology and quality of the studies weren’t considered in the selection process due to paucity of available literature.

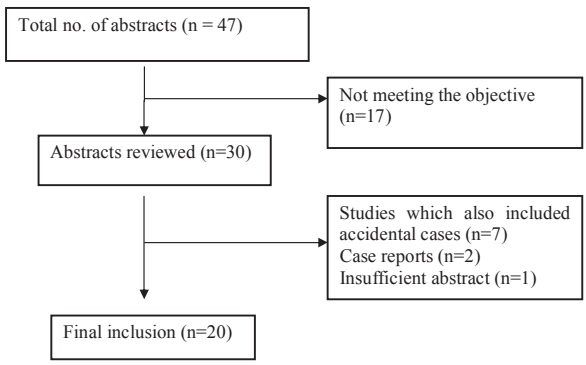

Fig. 1. Results of literature review.

2.1. Inclusion criteria

We included all the published hospital or community based studies conducted till December 2016 which have studied attempted/completed suicide or deliberate self harm (DSH) cases to explore epidemiology, pattern or associated risk factors. We also included studies conducted among specific groups with objective of either studying the prevalence of suicidal ideas or risk factors.

2.2. Exclusion criteria

We excluded seven studies which included both suicidal and accidental cases presenting to medical emergency without elaborating on the pattern of self harm and suicide among the subjects. One study was excluded due to lack of details in the abstract and unavailability of the full article despite repeated attempts to contact the authors. Two case reports were further excluded.

Finally, a total of 20 studies were selected after stepwise review of literature (Fig. 1). Besides these articles, we have also incorporated data from the police, post-earth quake trend and comments from available review articles wherever relevant.

3. Results

Majority of the studies are tertiary hospital based, conducted mainly in medical colleges or government hospital settings. Most of the data collection is based on either retrospective review of medical records or cross-sectional study on patients from outpatient/inpatient services of Psychiatry Department (Table 1). Some of the studies have focussed specific population groups like geriatric population, medical students, migrant workers, refugees with temporary settlements in Nepal etc. (Table 2).

3.1. Incidence/Prevalence

The data on suicide reaches Central Bureau of Statistics (CBS) via Ministry of Health and Population, Local administration body and the Police departments and is reported to World Health Organization along with other indicators of health; however, Nepal is not currently able to enact this reporting pathway because a formal vital surveillance system does not exist. The issue is further complicated by limited engagement of families in reporting suicide because of fear of legal entanglements anticipated with reporting Suicide, anticipated stigma for families of suicide victims, and greater time and financial burden compared to reporting natural deaths (Hagaman et al., 2016). According to data released by the police there were 4667 deaths by suicide during one year period, 2015/16 CE (B.S. 2071/72 as per Nepali calendar). Based on this data, the calculated crude suicide rate for the given year turns out to be 16.4/100,000. The common modes of suicide were hanging (72%), poisoning (25.3%), jumping (1.4%) and others (1.3%). Further, percentage of suicide by development regions showed the following trend: Eastern: (23.6%); Central (20.7%) with 400 cases in the capital Kathmandu, Western (21.2%), Mid-western (16.8%) and Far-western (17.7%) (Nepal Police suicide data). Besides the record from the police, nationwide representative prevalence study of suicide in Nepal is lacking. The earliest hospital based data available (Upadhyaya and Pol, 2007) reviewed the post-mortem records of 287 completed suicide cases over a period of two years (1996–97CE/B.S. 2052–53) in Western Regional Hospital estimating the overall crude Suicide rate to be 12.4/100000; higher in men (18.9) than women (4.8). The study had a small sample size and didn’t calculate age specific rates. The authors discussed certain limitations like over-representation of data from a single city; exclusion of potential suicide cases e.g. those by road traffic accidents and hazardous drug use due to difficulty in assessment of the intent of the victims.