

Non-communicable Diseases in Nepal Research Roundup

Making non-communicable diseases a national priority

Volume: IV

Issue: 12

December 2023

Online Access at: <https://nepalhealthfrontiers.org/ncd-watch-nepal>



Suggested Citation:

NCD Watch Nepal: Non-communicable Diseases in Nepal-Research Roundup November 2023. Adhikari TB, Paudel K, Bhusal S, Neupane D. vol. IV, issue 12, Kathmandu Nepal: 2023: 12.17.

Non-communicable Diseases in Nepal-Research Roundup

December 2023



Publications

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Roundup Summary

In December 2023, a scoping review of the literature on non-communicable diseases and mental health in Nepal yielded 13 articles. Most of the studies explored mental health followed by diabetes management, cardiovascular diseases, cancers, and hypertension.

Effectiveness of a group-based Diabetes Prevention Education Program (DiPEP) in a population with pre-diabetes: a cluster randomized controlled trial in Nepal

DOI: <https://doi.org/10.1136/bmjnph-2023-000702>

Context: Although several lifestyle intervention studies have been conducted in low/middle-income countries, there were no such studies in Nepal.

Methodology: A two-arm cluster randomised controlled trial was conducted in 12 clusters of two urban areas in Nepal. The DiPEP was a 6 month intervention (four 1-hour weekly educational sessions and 5 months of follow-up by community health workers/volunteers (CHW/Vs)). A postintervention assessment was done after 6 months.

Key message: Individuals who participated in ≥ 3 educational sessions had reduction in HbA1c and those who attended ≥ 1 educational session had weight reduction. Hence, group-based lifestyle intervention programmes involving CHW/vs is recommended for diabetes prevention.

Advancing diabetes primary care education and knowledge in Nepal: A scoping review and case study discussion

DOI: <https://doi.org/10.1016/j.pcd.2023.11.012>

Context: In Nepal, a developing country, DM affects 8.5% of adults, with an alarming increase in recent years. Lack of diabetes education and limited populational adoption of behavioral changes further hamper care.

Methodology: A scoping review to determine the status of awareness, attitudes, and knowledge about diabetes in the Nepalese population with a focus on the educational initiatives that have been implemented.

Key message: Effective education for healthcare professionals, community, and patients with diabetes is vital in improving diabetes outcomes in Nepal and South Asia. Collaboration, funding, and evaluation are key areas needing reform.

Stigma, depression and quality of life among people affected by neglected tropical diseases in Nepal

DOI: <https://doi.org/10.1093/inthealth/ihad099>

Context: Stigma and poor mental health are important factors influencing the quality of life (QOL) of people with neglected tropical diseases (NTDs).

Methodology: A cross-sectional community-based survey was conducted among 102 NTD-affected persons (70 leprosy and 32 LF) using interview-administered questionnaires.

Key message: The study showed a considerable burden of depression, stigma and poor QOL among study participants with leprosy and LF in Nepal. A holistic package of care that addresses the physical, mental and psychological well-being of people with NTD is required.

Prevalence of maternal depression and anxiety symptoms and associations with child mental health outcomes in rural Nepal

DOI: <https://doi.org/10.1111/tmi.13956>

Context: Mental health association is not well-understood in rural, community-based settings in low- and middle-income countries (LMIC).

Methodology: A sample of 347 women with children under 5 years was recruited in September 2019 for a cross-sectional study in the rural Saptari district in Nepal.

Key message: The prevalence of probable maternal anxiety and depression symptoms was relatively high in this rural, low-resourced and community-based setting in Nepal. Maternal depressive symptoms were associated with the degree of impact on children's mental health post-infancy, emphasizing the importance of improving maternal mental health in the early years of a child's life.

Estimating the Health Care Expenditure to Manage and Care for Type 2 Diabetes in Nepal: A Patient Perspective

DOI: <https://doi.org/10.1177/23814683231216938>

Context: More than 60% of health care expenses comprise the direct medical cost, 15% direct nonmedical cost, and 24% patient productivity losses. The costs of diagnosis, hospitalization, and recommended foods were the main drivers of healthcare costs for managing type 2 diabetes.

Methodology: This is a baseline cross-sectional study of a health behavior intervention that was conducted between September 2021 and February 2022 among patients with T2D (N = 481) in

the Kavrepalanchok and Nuwakot districts of Nepal. Bottom-up and micro-costing approaches were used to estimate the health care costs and were stratified according to residential status and the presence of comorbid conditions.

Key message: Over 6 months the mean health care resource cost to manage T2D was US \$22.87 per patient: 61% included the direct medical cost (US \$14.01), 15% included the direct nonmedical cost (US \$3.43), and 24% was associated with productivity losses (US \$5.44).

Prevalence and Comparison of Conventional Risk Factors of Cardiovascular Disease Between Clinical and Nonclinical Staff

DOI: <https://pubmed.ncbi.nlm.nih.gov/38196209/>

Context: Cardiovascular disease is the leading cause of death around the globe. A number of studies have shown that hospital staff are vulnerable to cardiovascular disease due to a certain risk of shift duty. It is important to identify cardiovascular risk factors among hospital staff.

Methodology: A quantitative cross-sectional study was conducted among staff working at a Shahid Gangalal National Heart Center, a tertiary cardiac center in Nepal.

Key message: Prevalence of hypertension, diabetes mellitus, and dyslipidemia was less in clinical staff compared to non-clinical staff.

Prevalence of Depression and its Associated Factors among Inmates

DOI: <https://pubmed.ncbi.nlm.nih.gov/38196213/>

Context: Depression can cause suicidal attempts among prisoners and it is intimidating to speculate the deteriorating mental status of them. Since, there is very limited research on the depression of prisoners in Nepal and as prisoners have rights to health care without any discrimination.

Methodology: An institute-based cross-sectional study was employed on 352 inmates selected by a systematic random sampling method from July 15 to August 15 2022. Face-to-face interview was conducted using the Centre for Epidemiological Studies Depression Scale (CESD).

Key message: The prevalence of depression among the inmates was 54.3%. About 4.3% reported suicidal ideation during imprisonment. More than half of the prisoners have depressive symptoms & thus recommended for the confirmatory diagnosis and treatment of mental issues drawing the attention of concerned authorities toward prisoner's mental health.

Prevalence and risk factors associated with hypertension in a rural municipality, Nepal

DOI: <https://doi.org/10.54530/jcmc.1435>

Context: Hypertension is a significant public health concern globally, as it is a major risk factor for cardiovascular diseases and contributes to high mortality rates.

Methodology: A cross-sectional study was conducted from May 1 to 13, 2022, involving 315 respondents aged 40 years and above. Hypertension and associated factors were assessed using a self-constructed questionnaire, a doctor's aneroid sphygmomanometer, and a stethoscope.

Key message: The prevalence of hypertension was 41%. Alcohol consumption was reported by 43.2% of respondents, while 28.3% had a smoking habit, 24.1% used smokeless tobacco, 87.6% consumed red meat, and the majority (60.3%) engaged in moderate-intensity activities.

Prevalence and association of depression, anxiety and stress among undergraduate medical students of Nepal

DOI: <https://doi.org/10.54530/jcmc.1418>

Context: Medical training can be a period of significant psychological distress but adequate data examining the prevalence and association of poor mental health in medical students in Nepal is lacking.

Methodology: A multi-centre cross-sectional study was conducted using the Depression, Anxiety and Stress Scale (DASS-21) in addition to questions about socio-demographic characteristics of the participants.

Key message: Nepalese medical students experience high levels of psychological distress. There is a need for relevant authorities to implement changes to the medical education system in Nepal and develop adequate support services for this population.

Awareness on stroke among hypertensive patients attending at teaching hospital, Bharatpur, Chitwan, Nepal

DOI: <https://doi.org/10.54530/jcmc.1447>

Context: Hypertensive patients are at the risk of developing stroke. Awareness regarding stroke is essential for the prevention and initiation of immediate effective treatment of stroke.

Methodology: A cross-sectional survey was carried out among hypertensive patients attending Medicine Out-patient Department of Chitwan Medical College Teaching Hospital, Bharatpur, Chitwan.

Key message: The awareness of stroke among hypertensive patients attending at teaching hospital of Chitwan seems to be insufficient at present. Hence, there is need for the awareness program for the hypertensive patients on stroke to prevent potential complication associated with it.

Factors Associated with Depression among Elderly in Mahalaxmi Municipality, Lalitpur, Nepal

DOI: <https://he02.tci-thaijo.org/index.php/jph/article/view/225623>

Context: Depression is a common mental health problem among the elderly, and its prevalence is increasing. This cross-sectional study aimed to assess the level of depression and the factors that contributed to depression.

Methodology: The study was conducted among 370 respondents aged 60 years and above obtained through multistage proportionate random sampling in Mahalaxmi Municipality, Lalitpur.

Key message: This study highlights the need for addressing depression among the elderly through targeted effective interventions and prioritizing elderly mental health care by policymakers.

Comorbid Diabetes and Hypertension: Gender differences in prevalence and risk factors among adults (≥ 18 years) in an urban community in Kathmandu District in Nepal

DOI: <https://doi.org/10.3126/nmcj.v25i4.60872>

Context: Chronic diseases such as diabetes and hypertension are often influenced by biological, behavioural, environmental and social factors in women and men.

Methodology: A community-based cross-sectional analytical study was carried out in Gokarneshwor Ward 1, 2 and 3 among adults aged 18 years and above from September 2020-May 2023. Diabetes (DM) was defined as persons previously diagnosed by a physician and/or on anti-diabetic medication.

Key message: Prevalence of comorbid diabetes and hypertension may differ marginally among men and women. Though comorbidity rates appear to be lower in Nepal in comparison to other

countries in South Asia, the rising burden emphasizes the need for tailored public health interventions that address modifiable risk factors among men and women.

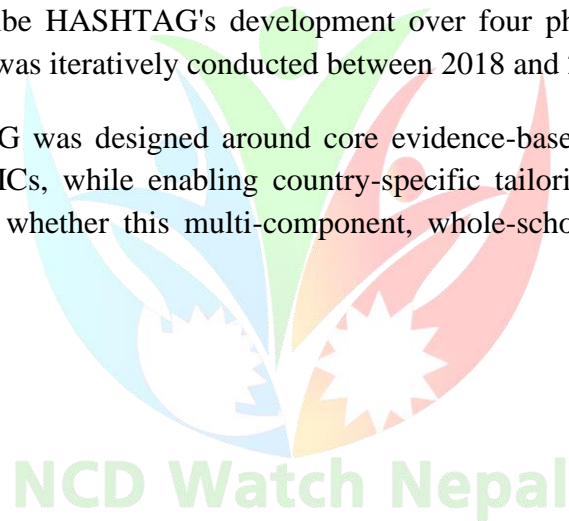
Development of a school-based programme for mental health promotion and prevention among adolescents in Nepal and South Africa

DOI: <https://doi.org/10.1016/j.ssmmh.2023.100289>

Context: Implementing universal, school-based psychosocial interventions can improve short- and long-term health trajectories for adolescents. While these interventions may offer important opportunities for fostering skills and relationships, few school-based interventions have been developed for and tested in low- and middle-income countries (LMICs) where adolescent mental health needs may be significant and under-served.

Methodology: We describe HASHTAG's development over four phases, combining methods and results as each phase was iteratively conducted between 2018 and 2021.

Key message: HASHTAG was designed around core evidence-based components to increase translatability across LMICs, while enabling country-specific tailoring to enhance feasibility. Future research will test whether this multi-component, whole-school approach can improve adolescent mental health.



We thank you all for joining our initiative to promote evidence-informed policymaking and promote public awareness of the non-communicable disease (NCDs) and related issues in Nepal- we are committed to staying up to date with the latest NCD research in Nepal.

This issue covers a summary of scientific publications on NCDs in Nepal for the month of December 2023.

Should you have colleagues who'd like to receive these updates via email (ncdwatchnepal@gmail.com)

Individual summary of the round-up is also available on our social media outlets:

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- ⇒ Facebook: <https://www.facebook.com/NCDWatchNepal>
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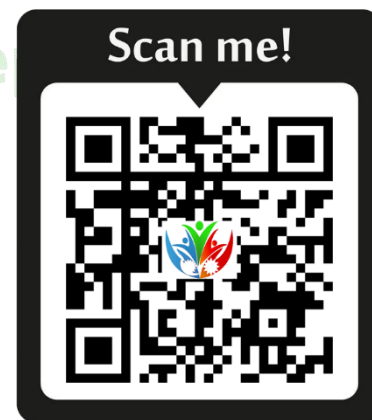
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Publications



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