

Non-communicable Diseases in Nepal Research Roundup

Making non-communicable diseases a national priority

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Non-communicable Diseases in Nepal-Research Roundup

November 2023



Publications

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Roundup Summary

In November 2023, a scoping review of the literature on non-communicable diseases and mental health in Nepal yielded 16 articles. Most of the studies explored mental health followed by diabetes management, cardiovascular diseases, cancers, and hypertension.

Female community health volunteers' experience in navigating social context while providing basic diabetes services in western Nepal: Social capital and beyond from systems thinking

DOI: <https://doi.org/10.1371/journal.pgph.0002632>

Context: Burden of non-communicable diseases (NCDs) has led to an increased mobilization of community health workers (CHWs) in the prevention and management of NCDs, particularly in resource-poor settings.

Methodology: This qualitative study conducted two focus group discussions and nine in-depth interviews with a total of 14 and 9 female community health volunteers (FCHVs), respectively in Western Nepal.

Key message: The findings highlighted the challenges encountered by FCHVs in expanding their social networks, building trust, and fostering reciprocity among diabetes intervention recipients. Social trust was a significant challenge, compounded by power dynamics related to gender and socioeconomic status. FCHVs overcome these challenges through their perseverance, self-motivation, and leveraging their strong bonding and linking social capital.

Occupational stress and environmental impact among traffic police officers in Kathmandu Valley, Nepal: A qualitative study

DOI: <https://doi.org/10.1371/journal.pgph.0002174>

Context: The growing population with an increasing number of vehicles and the harsh working environment has made the work of traffic police even more stressful in Kathmandu Valley, Nepal.

Methodology: Qualitative study among 15 traffic police personnel working in Kathmandu Valley, Nepal.

Key message: Most of the participants reported having work stress due to the heavy workload and hazardous working conditions that had a significant impact on their job performance and mental well-being. The findings suggest that efforts should be made to improve the working environment of traffic police officers to reduce the physical as well as mental burden among them.

Psychological morbidities among Nepalese migrant workers to Gulf and Malaysia

DOI: <https://doi.org/10.1371/journal.pone.0267784>

Context: Migrant workers in Gulf countries have to work in harsh conditions, and the majority of South Asian migrant workers there working as construction workers, domestic helpers, cleaners, and drivers, have lower pay, longer working hours, and physically and mentally hazardous work and home settings.

Methodology: A descriptive cross-sectional study was conducted among 502 Nepalese migrant workers in the arrival section of Tribhuvan International Airport.

Key message: The results suggested that 14.4% of migrant workers had mild to severe depression while 4.4% had a moderate level of anxiety. The WHO5 wellbeing index score suggested that 14.1% of the respondents had poor psychological wellbeing. Further, the country of work, sleeping hours, occupation, working hours, water intake, and anxiety level were found to be significantly associated with depression score.

Cross-cultural adaptation of Nepalese literacy and stigma of suicide scales (LOSS-SF-Nep and SOSS-SF-Nep) among Nepalese medical and nursing students

DOI: <https://doi.org/10.1002/brb3.3344>

Context: There is ongoing trend of emerging research on suicide from Nepal but there is lack of validated scale in measuring literacy or stigma.

Methodology: This was a validation study of Nepalese literacy of suicide scale (LOSS-SF-Nep) and Stigma of Suicide Scale (SOSS-SF-Nep). A cross-sectional study was conducted at National medical college, Nepal.

Key message: The mean score of LOSS-SF-Nep was 6.36 ± 1.92 and literacy ranged from 37.9% to 89.7%. Factor analysis of SOSS-SF-Nep revealed three subscales: stigmatization, isolation/depression, and normalization/glorification and had acceptable psychometric properties. Gender, occupation of head of the family, region and years of education, using mental health services, and depression were associated with variable literacy or stigma.

Effectiveness of a dietician-led intervention in reducing glycated haemoglobin among people with type 2 diabetes in Nepal: a single centre, open-label, randomised controlled trial

DOI: <https://doi.org/10.1016/j.lansea.2023.100285>

Context: The role of the dietician in the clinical setting for the management of diabetes has been overlooked by concerned authorities.

Methodology: This was a hospital-based, randomised controlled trial conducted among patients with type 2 diabetes at Tribhuvan University Teaching Hospital, Kathmandu, Nepal. Participants were randomly assigned to either dietician-led dietary intervention group (n = 78) or usual care control group (n = 78).

Key message: This study found that the dietician-led intervention improved glycaemic control, improved macronutrient intake, and clinical outcomes among people with type 2 diabetes. The dietician-led intervention may be considered for diabetes management in LMICs.

Suicidal ideation, plan, and attempt among men who have sex with men in Nepal: Findings from a cross-sectional study

DOI: <https://doi.org/10.1371/journal.pgph.0002348>

Context: Men who have sex with men (MSM) are at increased risk for suicide, with a much higher prevalence of suicidality than the general population.

Methodology: A cross-sectional respondent driven survey was conducted on 250 MSM in Kathmandu valley, Nepal.

Key message: Overall, the lifetime prevalence of suicidal ideation, plans, and attempts among MSM in this study were 42.4%, 31.2%, and 21.6%, respectively. MSM with depressive symptoms, advanced education, and smoking habit were at increased risk for suicidal ideation. Similarly, those with depressive symptoms and advanced education were more likely to plan suicide, whereas young MSM were significantly more prone to attempting suicide.

Impact of hospital pharmacist-delivered individualised pharmaceutical service intervention on clinical and patient-reported outcomes in patients with hypertension: a randomised controlled trial

DOI: <https://doi.org/10.1136/ejhpharm-2020-002512>

Context: Patients with hypertension in Nepal are often known to have poor medication adherence and quality of life.

Methodology: This was a randomised controlled trial, 56 adult patients with hypertension receiving antihypertensive medication for ≥ 6 months were randomly allocated to a control group (n=28) which received the usual care and an intervention group (n=28) which received a pharmacist-delivered individualised pharmaceutical service (P-DIPS) along with the usual care.

Key message: This study concluded that a P-DIPS intervention in the hospital setting of Nepal has a significant potential to improve blood pressure, medication adherence and HRQoL in patients with hypertension.

Cervical cancer prevention program in Nepal: a 'training of trainers' approach

DOI: <https://doi.org/10.29392/001c.90042>

Context: Cervical cancer remains the leading cause of cancer-related death among Nepalese women.

Methodology: The Nepal cervical cancer prevention program began with an in-person training of trainers (TOT) session in Kathmandu with virtual support, didactic lectures from international faculty, and a hands-on component by Nepalese faculty. The stations included: visual inspection with acetic acid (VIA), colposcopy, thermal ablation, and loop electrosurgical excision procedure (LEEP).

Key message: Participants had improved mean knowledge scores after the training. Nepal's cervical cancer prevention program has increased the number of providers trained in cervical cancer prevention techniques.

Experience of primary healthcare workers in using the mobile app-based WHO mhGAP intervention guide in detection and treatment of people with mental disorders: A qualitative study in Nepal

DOI: <https://doi.org/10.1016/j.ssmmh.2023.100278>

Context: The treatment gap on mental health care is much higher in low- and middle-income countries (LMICs) where specialist mental health resources are limited.

Methodology: A qualitative study was conducted with 15 primary healthcare workers (3 females and 12 males) who were trained in using the WHO mhGAP mobile application in Jhapa, Nepal.

Key message: Health care workers (HCWs) found the mobile app helpful to verify and confirm their assessment and diagnosis. However, lack of clarity about report submission modality; lack of electricity or internet connectivity; and low technology literacy among older HCWs were some of the barriers in using the app.

Correlation of Body Mass Index with Blood Pressure in School Going Children Aged 6 To 14 Years in Ramdhuni Municipality of Eastern Nepal

DOI: <https://bjhs.com.np/bjhs/index.php/bjhs/article/view/446>

Context: The chance of high blood pressure (BP) in overweight and obese children is more than healthy weight children.

Methodology: This was a school based cross-sectional conducted among 490 apparently healthy students in Ramdhuni municipality of eastern Nepal.

Key message: Among the participants, 77.8%, 10.6%, and 5.9% were normal weight, overweight, and obese, respectively. The body mass index was statistically significant as an explanatory variable of hypertension for both genders.

Temporal trends in disease burden and attributable risk factors for tracheal, bronchus, and lung cancer in Nepal, 1990–2019

DOI: <https://doi.org/10.1016/j.canep.2023.102497>

Context: Tracheal, bronchus, and lung (TBL) cancer is one of the most common cancers in Nepal.

Methodology: This study analyzed data from Global Burden of Disease Study 2019.

Key message: The age-standardized incidence and prevalence rates increased by 12.7% (95% UI: –21.0 to 63.9%) and 12.8% (95% UI: –21.1 to 62.0%), respectively, compared with 1990. Given the continuing population growth and aging process, TBL cancer is likely to have a considerable impact on health in Nepal in the future. Therefore, there is a need to further establish effective TBL cancer prevention and control policies.

Prevalence of risk factors of non-communicable diseases in young adult populations of Shuklagandaki Municipality, Tanahun District, Nepal

DOI: <https://doi.org/10.18231/j.jchm.2022.038>

Context: Addressing non-communicable disease (NCDs) is a global priority in the Sustainable Development Goals, especially for young populations.

Methodology: A cross-sectional analytical study was conducted among 336 young adults (20-40 years) in the Shuklagandaki Municipality, Tanahun, Nepal.

Key message: The study showed a high prevalence of smoking (14%) and alcoholism (23.5%) among the young adult population. Similarly, the prevalence of hypertension, diabetes and CVDs were 5.7%, 6% and 7% respectively.

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

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

Context: Group-based education sessions could be a promising strategy for diabetes prevention in resource limited countries.

Methodology: This was a two-arm cluster randomised controlled trial 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)).

Key message: Individuals who participated in ≥ 3 educational sessions had significant reduction in HbA1c and those who attended ≥ 1 educational session had significant weight reduction. Grain intake was significantly reduced among the intervention arm than the control arm. Hence, group-based lifestyle intervention programmes involving CHW/vs is recommended for diabetes prevention.

Screening for Hypertension in Asymptomatic Individuals in Nepal: An Expert Consensus Statement

DOI: <https://www.nepjol.info/index.php/NHJ/article/view/59515>

Context: Early diagnosis and treatment are essential for undiagnosed hypertension and is possible through hypertension screening.

Methodology: This was a viewpoint. In two National Advisory expert consensus meetings, a total of 42 experts participated, discussed and voted on the key statements for formulating the consensus.

Key message: The major consensus recommendations were; (1) screening for hypertension should start among adults from 18 years of age, (2) effective screening of hypertension can aid in the early diagnosis, control, and improve the cardiovascular disease outcomes, (3) in asymptomatic adults, re-screening is necessary every 3 to 6 months, etc.

Cardiovascular Disease Risk Profiling among First-Degree Relatives of Premature Coronary Artery Disease Patients

DOI: <https://www.nepjol.info/index.php/NHJ/article/view/59447>

Context: First-degree relatives of patients with premature coronary artery disease are at heightened risk of cardiovascular events due to the synergy of genetic and environmental factors.

Methodology: The study was conducted among 144 first-degree relatives of patients with coronary artery disease in a tertiary care hospital in Kathmandu.

Key message: CVD risk factors like physical inactivity, smoking, diabetes, and dyslipidemia were found in 46.5%, 47.22%, 13.2%, and 52.01%, of the study participants, respectively. Appropriate direction based on opportunistic screening programs and risk stratification should be initiated which can play an important role in the primary prevention of early CAD.

Diabetes Mellitus among Patients with Non-alcoholic Fatty Liver Disease Visiting the Outpatient Department of Internal Medicine in a Tertiary Care Centre

DOI: <https://www.jnma.com.np/jnma/index.php/jnma/article/view/8324>

Context: Diabetes mellitus and non-alcoholic fatty liver disease may coexist and synergistically lead to poor clinical outcomes.

Methodology: A descriptive cross-sectional study was conducted among 150 patients with non-alcoholic fatty liver disease in Nepal Medical College and Teaching Hospital (NMCTH).

Key message: Among the participants, diabetes mellitus was seen among 18 (12%) with males being higher prevalent [12 (66.67%)].



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 November 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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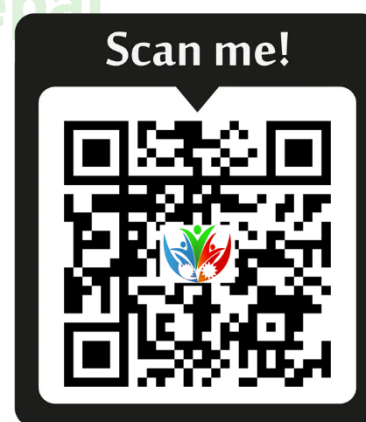
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Publications



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