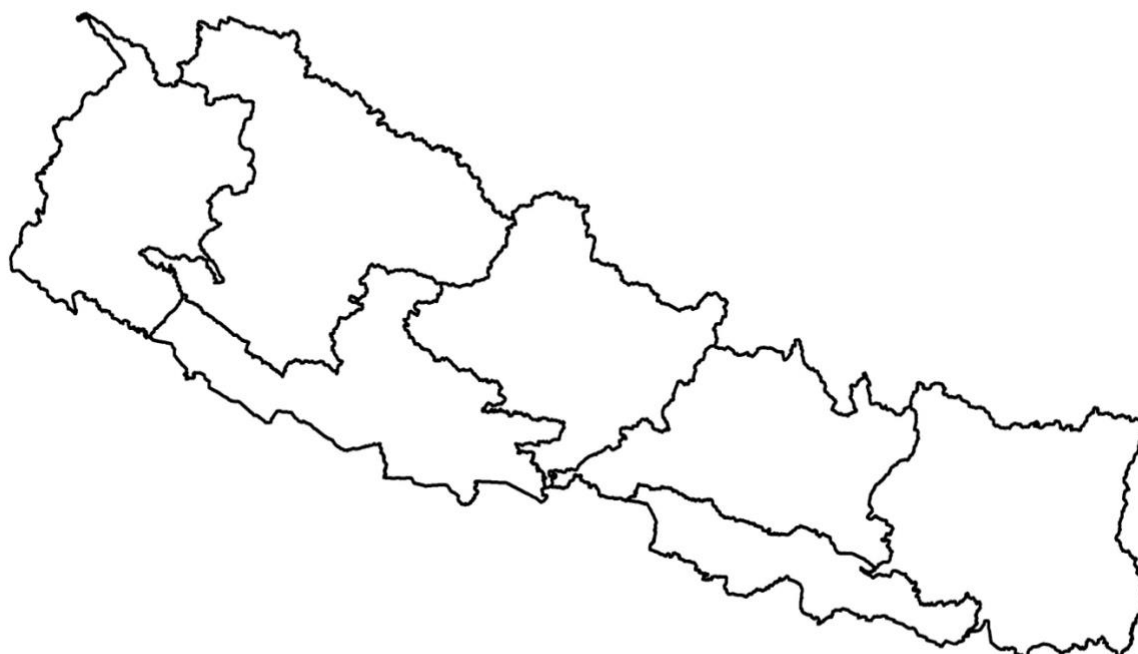# Non-communicable Diseases in Nepal

Research Roundup April 2022

Making non-communicable diseases a national priority

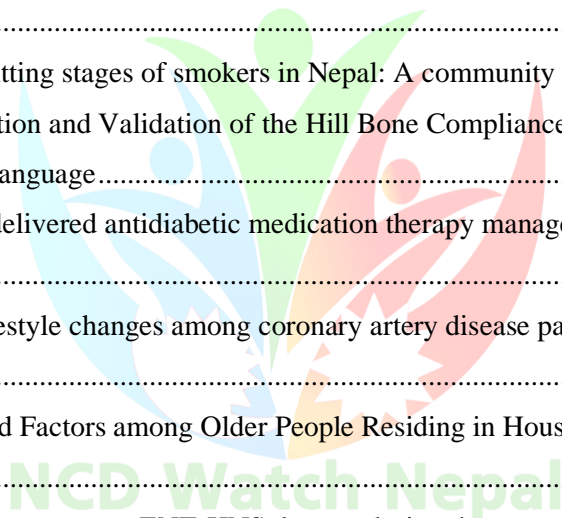# Non-communicable Diseases in Nepal-Research Roundup

April 2022

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Roundup Summary

For the month of April 2022, our scoping on non-communicable diseases in Nepal found 15 published articles. Majority of the studies were cross sectional studies and, covering the topic of mental health and cardiovascular disease.

The Burden of Depressive and Anxiety Disorders in Nepal, 1990-2017: An Analysis of Global Burden of Disease Data

Link: http://jkahs.org.np/jkahs/index.php/jkahs/article/view/670

Context: Depressive disorders are common mental health disorders that rank as top contributors to disability worldwide. Despite their burgeoning concerns, these are still limited data on this disorder.

Methodology: This study analyzed the publicly available Global Burden of Disease (GBD) data on anxiety and depressive disorders on Nepal from 1990 to 2017.

Key message: The prevalence of depression and anxiety was higher among females. Childhood sexual abuse was found to be the major risk factor for depressive disorder, contributing to 32.5 Disability Adjusted Life Years (DALYs) in both sexes.

Lifestyle Pattern among Nepalese Migrant Workers in Gulf Countries and Malaysia

DOI: https://doi.org/10.37506/ijone.v14i2.17978

Context: Nepal is one of the largest providers of low-skilled laborers to gulf countries. The conditions surrounding the migration can increase health vulnerabilities due to lifestyle patterns.

Methodology: Descriptive cross-sectional study was conducted among 502 Nepali migrant workers arriving at Tribhuvan International Airport, Kathmandu, Nepal from gulf countries and Malaysia from 15th May to 15th June 2019.

Key message: This study found that Nepalese migrant workers have unhealthy lifestyle patterns, increasing the risk of non-communicable diseases. More than half (51.5%) of respondents consumed alcohol, 69.3% never did exercise, and 7.6% often consumed extra added salt. The majority (86.9%) of the respondents worked 8-12 hours per day and 27.5% worked at temperatures of 41-50 degrees centigrade.

Self-efficacy and social support as mediators of mental health among abused women

Context: Supportive counseling and facilitated referrals to support organizations have shown positive effects on mental health and coping with domestic and family violence.

Methodology: This study used data from a randomized controlled trial of a psychosocial intervention implemented in Nepal among 140 abused pregnant women.

Key message: The postintervention changes in self-efficacy and social support were found to have significant mediating effects on the relationship between the intervention and changes in both mental health and quality of life of participants post-intervention.

Effectiveness of an educational intervention in improving healthcare workers' knowledge of early recognition, diagnosis and management of rheumatic fever and rheumatic heart disease in rural far-western Nepal: a pre/post-intervention study

Context: Although Rheumatic fever (RF) and rheumatic heart disease (RHD) these conditions are preventable and treatable, the lack of proper knowledge and resources to diagnose and manage these conditions in rural health centres is a key concern.

Methodology: This pretest and post-test interventional design study assessed impact of educational session among 64 healthcare workers in two primary healthcare centres and a peripheral district-level hospital in Achham district in the far-western region of Nepal.

Key message: The study reported overall increase of test score from 10 to 13.8. It was also effective in improving confidence of healthcare workers in the early recognition, diagnosis, and management of RF and RHD at the primary healthcare level.

Estimation of mean population salt intakes using spot urine samples and associations with body mass index, hypertension, raised blood sugar and hypercholesterolemia: Findings from STEPS Survey 2019, Nepal

Context: High dietary salt intake is recognized as a risk factor for several non-communicable diseases (NCDs), in particular cardiovascular diseases (CVDs), including heart attack and stroke.

Methodology: A population-based cross-sectional study was carried out from February to May 2019 using a WHO STEPwise approach to surveillance. Spot urine was collected from 4361 participants aged 15–69 years for the analysis of salt intake.

Key message: This study found that salt consumption in Nepal is high, with a total of 70.8% of the participants having a mean salt intake >5g/d, well above the World Health Organization recommendation. High salt intake was found to be associated with sex, age group, education, province, BMI, and raised cholesterol level of participants.

Nicotine dependence and quitting stages of smokers in Nepal: A community based cross-sectional study

Context: For effective implementation of smoking cessation programs, there is an urgent need to reduce dependence, identify smokers' attitudes toward smoking cessation, and help smokers to progress through the stages of change.

Methodology: A community-based quantitative cross-sectional study was conducted among 280 smokers aged 15–69 years in Bharatpur metropolitan, Nepal. The six-item Fagerstrom Test for Nicotine Dependence (FTND) was used to assess nicotine dependence.

Key message: In this study, 33.9% of participants had a high level of nicotine dependence and nearly half of the participants felt difficulty to refrain smoking even in No-smoking areas. Participants in the age group 20–39 years (AOR 3.3, 95% CI = 1.0–10.5), those who initiated smoking before age of 15 years (AOR 3.6, 95% CI = 1.8–7.4), those spending more on tobacco products (AOR 4.5, 95% CI = 2.2–8.9), those who initiated smoking due to mental stress (AOR 2.5, 95% CI = 1.0–6.0) had a greater risk of nicotine dependence.

Translation, Cultural Adaptation and Validation of the Hill Bone Compliance to High Blood Pressure Therapy Scale to Nepalese Language

Context: Control of high blood pressure and prevention of cardiovascular complications among hypertensive patients depends on patients' adherence to therapy.

Methodology: A cross-sectional study conducted to translate, culturally adapt and validate the Hill–Bone Compliance to High Blood Pressure Therapy Scale (HBCTS) into the Nepalese version. The standard translation process was followed and was evaluated among 282 hypertensive patients visiting selected primary healthcare centers (PHCCs) in Kathmandu district, Nepal.

Key message: This study concluded that the translated Nepali version of the HBCTS demonstrated acceptable reliability and validity to measure adherence to antihypertensive therapy among hypertensive patients in clinical and community settings in Nepal. The mean ±SD score for overall adherence was 17.85± 3.87 while those of medication taking, reduced salt taking, and appointment keeping subscales were 10.63± 2.55, 4.16± 1.12, and 3.06± 1.07, respectively.

Initiation of the pharmacist-delivered antidiabetic medication therapy management services in a tertiary care hospital in Nepal

Context: Medication therapy management (MTM) in type 2 diabetes has been introduced to optimize treatment outcomes for the patients to prevent or resolve medication-related problems and to provide health and wellness education to the patients.

Methodology: Cross-sectional study was conducted at Patan Hospital, Lalitpur, Nepal, among 200 patients with T2DM from July to December 2019. The intervention included maintenance of medication profile for individual patients, and then MTM service was proposed based on 5 core elements of MTM services proposed by the American Pharmacists Association.

Key message: Both fasting and postprandial blood sugar levels were significantly associated with age, baseline symptoms, and the diet plan proposed. Maximum cases of drug interactions requiring close monitoring were between metformin and insulin regular.

Effects of intervention on lifestyle changes among coronary artery disease patients: A 6-month follow-up study

DOI: https://doi.org/10.1002/nop2.1212

Context: Coronary artery disease (CAD) is the most common form of cardiovascular disease, responsible for 16% of the world's total death.

Methodology: The study with a pre-test post-test control group design was conducted in-patient wards of a National Heart Centre, in Kathmandu, Nepal among 224 participants. The lifestyle intervention consisted of a brief counseling session supplemented with informational leaflets.

Key message: A statistically significant effect of study group-by-time interaction for diet, adherence to medication, physical activity, and perceived stress was found at 6-month follow-up.

Depression and its Associated Factors among Older People Residing in Household Level of Chitwan District, Nepal

Link: https://www.jkahs.org.np/jkahs/index.php/jkahs/article/view/586

Context: With the rapidly growing elderly population, depression is becoming a major public health problem.

Methodology: This was a community-based cross-sectional study conducted among 318 older people in Chitwan District. Geriatric depression scale-15 was used to assess depression.

Key message: Among the participants, nearly half (49.4%) had depression; 10.38%, 5.6%, and 33.3% had mild, moderate, and severe depression respectively.

Immediate Psychological Impact among ENT-HNS doctors during the second wave of COVID-19 havoc in Nepal

Link: https://www.nepjol.info/index.php/JMCJMS/article/view/44627

Context: The COVID-19 pandemic has caused immense psychological problems among Health Care Workers (HCWs).

Methodology: A web-based cross-sectional study carried out from May 1 to 31, 2021 among the 62 ENT-HNS doctors. The anxiety level was measured using the GAD-7 scale.

Key message: Among the total 62 participants 77.4% had mild to severe anxiety. The young doctors, female doctors, and residents were more likely to be anxious than their counterparts. Similarly, participants who had lost a family member, close relative, or colleague were more likely to have anxiety.

Prevalence of Sexual Dysfunction in Women with Depressive Disorder at a Tertiary Hospital

DOI: https://doi.org/10.1177%2F26318318221080751

Context: Sexual dysfunction in females with depressive disorder is highly prevalent and strikingly understudied.

Methodology: A descriptive cross-sectional study was carried out among 102 females with depression at Tribhuvan University Teaching Hospital, Nepal. Beck Depression Inventory, Kessler 6+ Psychological Distress Scale, and Female Sexual Function Index were used to collect the information from the participants.

Key message: The prevalence of sexual dysfunction was 58.82%. 60.78% in drug-naïve cases and 56.86% in females suffering from depression and receiving medications. This study recommends that an assessment of sexual dysfunction in every female with depression is required to address the problem timely and efficiently.

Prevalence of Anxiety and Depression among Nightshift Working Nurses of Hospitals in Kathmandu City of Nepal

Link: http://jkahs.org.np/jkahs/index.php/jkahs/article/view/631

Context: Nurses professionals experience an overwhelming level of depression and anxiety, which remain taboo, despite the prevalence of these mental health conditions within the field.

Methodology: Cross-sectional hospital-based study was done among 206 nightshift working nurses in Kathmandu valley. Hospital Anxiety and Depression Scale was used to assess the level of anxiety and depression.

Key message: Almost 75.0% of nightshift working nurses had anxiety and nearly half (49.5%) of them had depression. Age of the nurses and level of anxiety; working duration of the nurses and level of depression was found significantly associated with the depression.

Prevalence of Breast Cancer in different geographical regions: A Retrospective Study from Central Nepal

Link: https://www.nepjol.info/index.php/njc/article/view/44255

Context: Breast cancer is the second most common malignancy among Nepalese women with prevalence of 28.5 per 100,000 population.

Methodology: A descriptive retrospective study to analyze the prevalence of breast cancer in different geographical regions based on data of patients visiting B.P. Koirala Memorial Cancer Hospital, Bharatpur, Nepal from January 2014 to December 2018.

Key message: Among 2115 cases of breast cancer during study period, 2052 were females and 63 were males. The mean age of presentation was 48 years. Maximum number of cases 65% (1376) were from terai region of Nepal.

Hypertension among Current Cigarette Smokers Visiting Outpatient Department of a Tertiary Care Centre: A Descriptive Cross-sectional Study

Link: https://www.jnma.com.np/jnma/index.php/jnma/article/view/7424

Context: Hypertension is a common physical condition with high blood pressure for a prolonged period. This study aimed to find the prevalence of hypertension among current cigarette smokers patients in an outpatient department of a tertiary care centre.

Methodology: A descriptive cross-sectional study was conducted among 385 outpatient department patients in a tertiary care centre from September 2021 to February, 2022.

Key message: 54.28% were hypertensive patients.

We thank you all for joining our initiative to promote evidence-informed policymaking and promote public awareness on 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 summary of scientific publications on NCDs in Nepal for the month of April 2022.

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

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

⇒ Twitter: https://twitter.com/NCDWatchNepal
⇒ Facebook: https://www.facebook.com/NCDWatchNepal
⇒ LinkedIn: https://www.linkedin.com/company/ncd-watch-nepal

Please join us and share with relevant colleagues. As always, previous editions of the round-up are available in our archive here at https://ncdwatchnepal.wordpress.com/research-round-up/

https://nepalhealthfrontiers.org/publication_type/ncd-watch-nepal-research-roundup/

Let's unite to beat NCDs.
#actOnNCDs #beatNCDs