### Non-communicable Diseases in Nepal Research Roundup

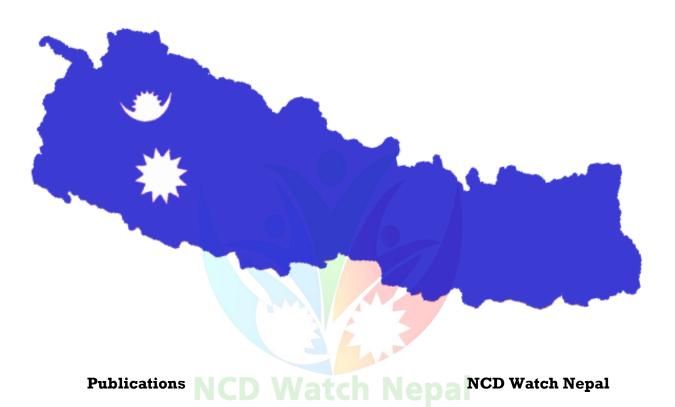
Making non-communicable diseases a national priority



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#### Non-communicable Diseases in Nepal-Research Roundup

September 2023















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#### **Roundup Summary**

In September 2023, a scoping review of the literature on non-communicable diseases and mental health in Nepal yielded 8 articles. Most of the studies were focused on the topics of studies explored diabetes management, uric acid and lipids correlation, post-COVID recovery, oral cancer awareness, symptom management and so on.

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

#### DOI: https://doi.org/10.1016/j.lansea.2023.100285

**Context:** Diabetes has been a growing health concern in Nepal, which has an impact on the population's health in terms of both premature mortality and the burden of living with the condition.

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

**Key message:** 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.

## Correlation of Serum Uric Acid and Lipid Profile in Patients with Type 2 Diabetes Mellitus

#### DOI: https://pubmed.ncbi.nlm.nih.gov/37742168/

**Context:** Abnormal Uric acid and lipid profile are the important risk indicators of diabetes mellitus complications.

**Methodology:** A cross-sectional study was done on 118 patients with type 2 diabetes mellitus visiting Nepal Medical College and Teaching Hospital.

**Key message:** A significant positive correlation between fasting blood glucose and triglyceride (r = .211, p = .022) was found in diabetics. Similarly, there was a significant negative correlation of fasting blood glucose with uric acid (r = -.196, p = .034) and high-density lipoprotein cholesterol (r = -.181, p = .049).

# Physical, mental and social status after COVID-19 recovery in Nepal: A mixed method study

DOI: https://doi.org/10.1371/journal.pone.0290693

**Context:** The physical, mental, and social effects of COVID-19 can be long-lasting and may require ongoing support and care.

**Methodology:** A descriptive cross-sectional mixed-method study was conducted in all seven provinces of Nepal. A total of 552 interviews quantitative study and 25 in-depth interviews for the qualitative study were conducted among COVID-19-recovered patients.

**Key message:** This study found that 15 percent of participants had repeated disturbing and unwanted thoughts about COVID-19 after recovering, 16 percent tried to avoid information on COVID-19 and 7.7 percent of people had unfavorable ideas or sentiments about themselves.

## Academic Stress among Adolescents of Rural Nepal: A Community-based Cross-Sectional Study

DOI: https://pubmed.ncbi.nlm.nih.gov/37742163/

**Context:** Adolescent mental health is harmed by changes in emotional and physical state, as well as increased academic pressure.

Methodology: A community-based cross-sectional survey was conducted among 424 adolescents residing in Karnali Province, Nepal. Academic stress was measured using a scale for assessing academic stress (SAAS).

**Key message:** Among the study participants, 19.8% had moderate academic stress and 2.4% of them had high academic stress. Female students, grade 10 students, students of literate mothers, and Students with unsatisfactory academic performance had higher odds of exhibiting academic stress.

## Prevalence and Associated Factors of Adolescent Obesity among Rural School Adolescents in Nepal: A Cross-Sectional Study

**DOI:** https://doi.org/10.1155/2023/2957278

**Context:** Obesity during adolescence is strongly associated with adulthood obesity leading to increased morbidities and mortality.

**Methodology:** This was an institution-based cross-sectional study conducted among 267 adolescent students studying in classes 8, 9, and 10 in four secondary schools of Gosaikunda

rural municipality of Rasuwa district, Nepal. Global School-based Health Survey (GSHS) standard questionnaires were used in collecting the information.

**Key message:** More than one-quarter of the adolescents were found to be obese/overweight, and the prevalence was significantly higher among female adolescents. It emphasizes the necessity of school-based programs promoting a healthy lifestyle among students to maintain a healthy weight status.

Knowledge, awareness and practice regarding oral cancer among undergraduate students and interns in a dental hospital

DOI: https://www.jcmc.com.np/jcmc/index.php/jcmc/article/view/1414

**Context:** Oral cancer is one of the three most common types of cancer and 2nd most common cancer in males in Nepal.

**Methodology:** This cross-sectional study was conducted among 700 BDS and MBBS students and interns at KIST Medical College and Teaching Hospital, Nepal.

**Key message:** This study found that the participants do not have adequate knowledge and awareness regarding oral cancer prevention and early detection.

Analysis of common symptoms using the Edmonton Symptom Assessment System in terminally ill cancer patients receiving palliative care at a tertiary care center of Nepal

DOI: https://jcmc.com.np/jcmc/index.php/jcmc/article/view/1389

**Context:** Patients with advanced cancer have a variety of physical and psychological symptoms.

**Methodology:** This prospective cross-sectional study enrolled 110 patients with terminal cancer receiving palliative care admitted at the clinical oncology department of Bir Hospital, Nepal. Patients completed the Edmonton Symptom Assessment System (ESAS) questionnaire within 24 hours of hospital admission.

**Key message:** This study found that the most common symptom experienced was poor well-being, followed by tiredness, and lack of appetite.

Mental Health Problems and Social Media Exposure during the COVID-19 Pandemic among Adult Population of Nepal

DOI: <a href="http://kumj.com.np/issue/82/207-214.pdf">http://kumj.com.np/issue/82/207-214.pdf</a>

**Context:** A very large number of people got exposed to social network sites during the COVID-19 period which can be hazardous and cause psychological difficulties.

**Methodology:** A descriptive cross-sectional study was conducted among 422 Nepalese citizens from all provinces of Nepal. The study assessed mental health problems using Depression, Anxiety and Stress (DASS-21) and Insomnia Severity Index (ISI).

**Key message:** The overall prevalence of depression, anxiety, stress, and insomnia among the study population was 32%, 28.4%, 24.5%, and 47% respectively. Additionally, 86.5% of individuals said they were frequently exposed to social media. Age, ethnicity, gender, past health problems, and health status were significantly associated with psychological problems.

Stroke epidemiology and outcomes of stroke patients in Nepal: a systematic review and meta-analysis

DOI: https://link.springer.com/article/10.1186/s12883-023-03382-5

**Context:** With an increasing burden of stroke, it is essential to minimize the incidence of stroke and improve stroke care by emphasizing areas that bring out the maximum impact.

**Methodology:** This was a systematic review and meta-analysis that included 55 studies in quantitative and narrative synthesis.

**Key message:** This study revealed that ischemic stroke was more frequent (70.87%) than hemorrhagic (26.79%), and the mean age of stroke patients was 62.9 years. Mortality occurred in 16.9%, thrombolysis was performed in 2.39% of patients. The study concluded that the provision of stroke care in Nepal needs to catch up to international standards.

Are digital social media campaigns the key to raise stroke awareness in low-and middle-income countries? A study of feasibility and cost-effectiveness in Nepal

DOI: https://doi.org/10.1371/journal.pone.0291392

**Context:** The lack of public stroke awareness especially in low- and middle-income countries (LMICs) such as Nepal severely hinders the effective provision of stroke care.

**Methodology:** This was a non-controlled cohort study based on exposure to advertising of stroke awareness materials on social media targeting users in Nepal.

Key message: Social media-based campaigns using paid advertisement provide a feasible and, compared to classical mass media, a very cost-effective approach to inform large parts of the population about stroke awareness in LMICs.

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 September 2023.

Should you have colleagues who'd like to receive these updates via email (<a href="mailto:ncdwatchnepal@gmail.com">ncdwatchnepal@gmail.com</a>)

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

- ⇒ Twitter: <a href="https://twitter.com/NCDWatchNepal">https://twitter.com/NCDWatchNepal</a>
- ⇒ Facebook: <a href="https://www.facebook.com/NCDWatchNepal">https://www.facebook.com/NCDWatchNepal</a>
- ⇒ LinkedIn: <a href="https://www.linkedin.com/company/ncd-watch-nepal">https://www.linkedin.com/company/ncd-watch-nepal</a>

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

https://nepalhealthfrontiers.org/publication\_type/ncd-watch-nepal-research-roundup/

**Publications** 

NCD Watch Nepal





Let's unite to beat NCDs.

#actOnnCDs #beatnCDs