

# 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

June 2024



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## Roundup Summary

In June 2024, our search on non-communicable diseases and mental health-related literature in Nepal yielded twelve published articles. Most of the studies covered mental health, followed by cancer, cardiovascular diseases, and diabetes.

### Depression among inmates of Gandaki Province, Nepal: a cross-sectional study

**DOI:** <https://doi.org/10.1186/s12888-024-05896-9>

**Context:** Depression, a widespread mental health condition, is notably more prevalent among inmates, with around 11% suffering from significant mental disorders like anxiety and depression.

**Methodology:** This is a descriptive cross-sectional study in Gandaki Province, Nepal, collected data from 223 inmates using systematic random sampling. Depression was measured with the Beck Depression Inventory-II.

**Key message:** The study found that 18.8% of inmates in Gandaki Province, Nepal, exhibited symptoms of depression, with significant associations between depression and factors such as health problems, suicide ideation during imprisonment, and prior suicide attempts, and warrants the urgent need for psychosocial and rehabilitative interventions.

### Sleep characteristics and changes in sleep patterns among infants in Bhaktapur, Nepal

**DOI:** <https://doi.org/10.1016/j.sleh.2024.02.004>

**Context:** Sleep changes significantly in the first year of life, but infant sleep patterns in low and middle-income countries are poorly documented.

**Methodology:** This community-based longitudinal study involved 735 infants. Sleep characteristics were gathered from mothers using the Brief Infant Sleep Questionnaires.

**Key message:** Cosleeping was nearly universal among Nepalese infants, with frequent night awakenings and short sleep durations. Despite these patterns, very few mothers reported sleep problems. Infants with frequent awakenings at 6 months were likely to continue this pattern at 12 months.

## **Health literacy among patients with non-communicable diseases at a tertiary level hospital in Nepal- A cross sectional study**

**DOI:** <https://doi.org/10.1371/journal.pone.0304816>

**Context:** Health literacy is essential for reducing premature mortality from non-communicable diseases and improving Universal Health Coverage, yet limited health literacy is widespread and linked to poor health outcomes.

**Methodology:** This is a cross-sectional survey conducted at TUTH from December 2022 to February 2023 involving 303 NCD patients. Data were collected through face-to-face interviews using a structured 44-item Health Literacy Questionnaire (HLQ).

**Key message:** The study revealed that educational status and various socio-medical factors significantly influence health literacy among patients with NCDs. It is important to address multiple factors comprehensively to improve health literacy and outcomes in at-risk populations through targeted interventions and support programs.

## **Translation, cultural adaptation and validation of Patient Health Questionnaire and generalized anxiety disorder among adolescents in Nepal**

**DOI:** <https://doi.org/10.1186/s13034-024-00763-7>

**Context:** Culturally adaptive and validated tools for measuring depression and anxiety are crucial to ensure the accurate identification of prevalent problems.

**Methodology:** The study involved ten focus group discussions and 25 cognitive interviews to adapt the PHQ-A and GAD-7 tools. The validation included a cross-sectional survey of 413 adolescents aged 12–19 across three municipalities in the Kathmandu district, using the K-SADS-DSM 5 administered by trained clinical psychologists.

**Key message:** The PHQ-A and GAD-7 showed moderate ability to screen for depression, but their performance in detecting anxiety was less reliable.

## **Medication Adherence among Patients with Non-Communicable Diseases in a Tertiary Hospital: A Descriptive Cross-sectional Study**

**DOI:** <https://doi.org/10.31729/jnma.8650>

**Context:** Major burdensome NCDs require long-term therapies and a significant effort in maintaining treatment adherence.

**Methodology:** This is a descriptive cross-sectional study assessing medication adherence among 322 patients at OPD with non-communicable diseases which was assessed using structured interviews and tools like MMAS-4, Culig Adherence Scale, and BMQ.

**Key message:** Less than half of the study participants demonstrated full adherence to prescribed medications, with forgetfulness identified as a significant cause of non-compliance, despite strong beliefs in the necessity of medication for maintaining health and well-being.

## Service Readiness of Primary Health Care Facilities for Non-Communicable Diseases Management

**DOI:** <https://doi.org/10.33314/jnhrc.v22i01.4914>

**Context:** The readiness of primary healthcare facilities with well-equipped facilities and trained providers is crucial to managing non-communicable diseases.

**Methodology:** This is a cross-sectional study that surveyed 117 health workers from primary healthcare facilities in Syangja District, Nepal, using face-to-face interviews with a modified WHO-SARA tool.

**Key message:** Improved infrastructure and training across service domains are needed to address the rising prevalence of NCDs.

## Prevalence of Anxiety and Depressive Symptoms among Hospitalized Patients Diagnosed with COVID-19

**DOI:** <https://doi.org/10.33314/jnhrc.v22i01.4835>

**Context:** Hospitalized patients diagnosed with COVID-19 face dual psychological and physiological effects.

**Methodology:** A multicenter descriptive cross-sectional study surveyed COVID-19 patients admitted across six hospitals. Data was gathered using a proforma including demographic details and two questionnaires (Hospital Anxiety and Depression Scale and Global Health Questionnaire-12).

**Key message:** High rates of anxiety, depression, and clinically significant mental distress highlighted a substantial mental health burden compared to the general population.

## Oral Glucose Tolerance Test for Universal screening for Gestational Diabetes Mellitus

**DOI:** <https://doi.org/10.33314/jnhrc.v22i01.4905>

**Context:** Gestational Diabetes Mellitus (GDM) has seen a swift rise underscoring the need for universal screening protocols.

**Methodology:** Clinical vignettes were used to train providers across several districts, who then implemented Oral Glucose Tolerance Tests. In-depth interviews with providers explored their perceptions and experiences, comparing practices with established protocols.

**Key message:** The administration of the Oral Glucose Tolerance Test was feasible and needs ongoing training and logistical support from the municipal level.

## Knowledge, Practice and Factors associated with Utilization of Cervical Cancer Screening Services

**DOI:** <https://doi.org/10.33314/jnhrc.v22i01.4896>

**Context:** Despite cervical cancer being a treatable health issue, the utilization of cervical cancer services is found to be unsatisfactory in Nepal.

**Methodology:** This is a cross-sectional study conducted among 156 married women in Dhulikhel Municipality, selected through convenience sampling using a standard questionnaire.

**Key message:** Cervical cancer screening uptake among participants was low (17.9%) despite most having sufficient knowledge about it. Annual healthcare visits, participant knowledge, and perceived barriers were significantly associated with screening.

## Association between academic expectation, academic self-perception with academic stress among undergraduate students

**DOI:** <https://doi.org/10.54530/jcmc.1494>

**Context:** Unrealistic academic expectations lead to academic stress among students.

**Methodology:** This is a cross-sectional study conducted among 305 students pursuing BPH in Kathmandu using simple random sampling and self-administered questionnaires, including Scale for Assessing Academic Stress (SAAS).

**Key message:** Academic expectation was significantly associated with academic stress, more than one-fourth of the students experienced high stress levels, particularly during exams and due to competition with peers and critical teachers.

### **Early detection and management of heart failure and its associated risk factors: prospect for task shifting among healthcare workers**

**DOI:** <https://doi.org/10.1093/eurjpc/zwae175.149>

**Context:** Cardiovascular diseases (CVDs) significantly contribute to poverty and health issues, necessitating affordable and context-specific public health and clinical interventions.

**Methodology:** The study was done in purposively selected communities in Eastern Nepal. Training was provided to identify complications and determine the need for prompt referral based on clinical evaluation, blood glucose levels, lipid profiles, and urine analysis. Referrals to secondary or tertiary or higher care centers were made for immediate intervention or further diagnostic procedures as per need.

**Key message:** A high burden of heart failure, with 5% of the population showing clinical features suggestive of the condition, was found. Early assessment and protocol-guided interventions are crucial for preventing progression, hospitalization, and death from heart failure, and can help detect and address preventable causes.

### **Cervical Cancer Screening Services in Nepal: A Descriptive Cross-sectional Study**

**DOI:** [10.31729/jnma.8662](https://doi.org/10.31729/jnma.8662)

**Context:** Cervical cancer is the leading cause of cancer-related deaths among reproductive-age women in Nepal, but regular screening can significantly reduce mortality.

**Methodology:** This is a cross-sectional study, conducted in 572 health facilities across Nepal, using quantitative methods to assess the state of cervical cancer screening, including facilities, dedicated screening rooms, routine availability, free services, human resources, and treatment availability.

**Key message:** Only 23.42% of healthcare facilities were found to be offering cervical cancer screening, with many lacking adequately trained personnel for advanced procedures like colposcopy and LEEP, despite the majority providing regular and free screening services.

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 June 2024.

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

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

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