EVALUATING THE IMPACT OF HAND HYGIENE PRACTICES ON INFECTION RATES AMONG UNIVERSITY STUDENTS

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INTRODUCTION:

This research investigated the effectiveness of hand hygiene practices among students at Nelson Mandela University (NMU).

To address a crucial gap in understanding current hand hygiene habits and their impact on infection rates within the university community.

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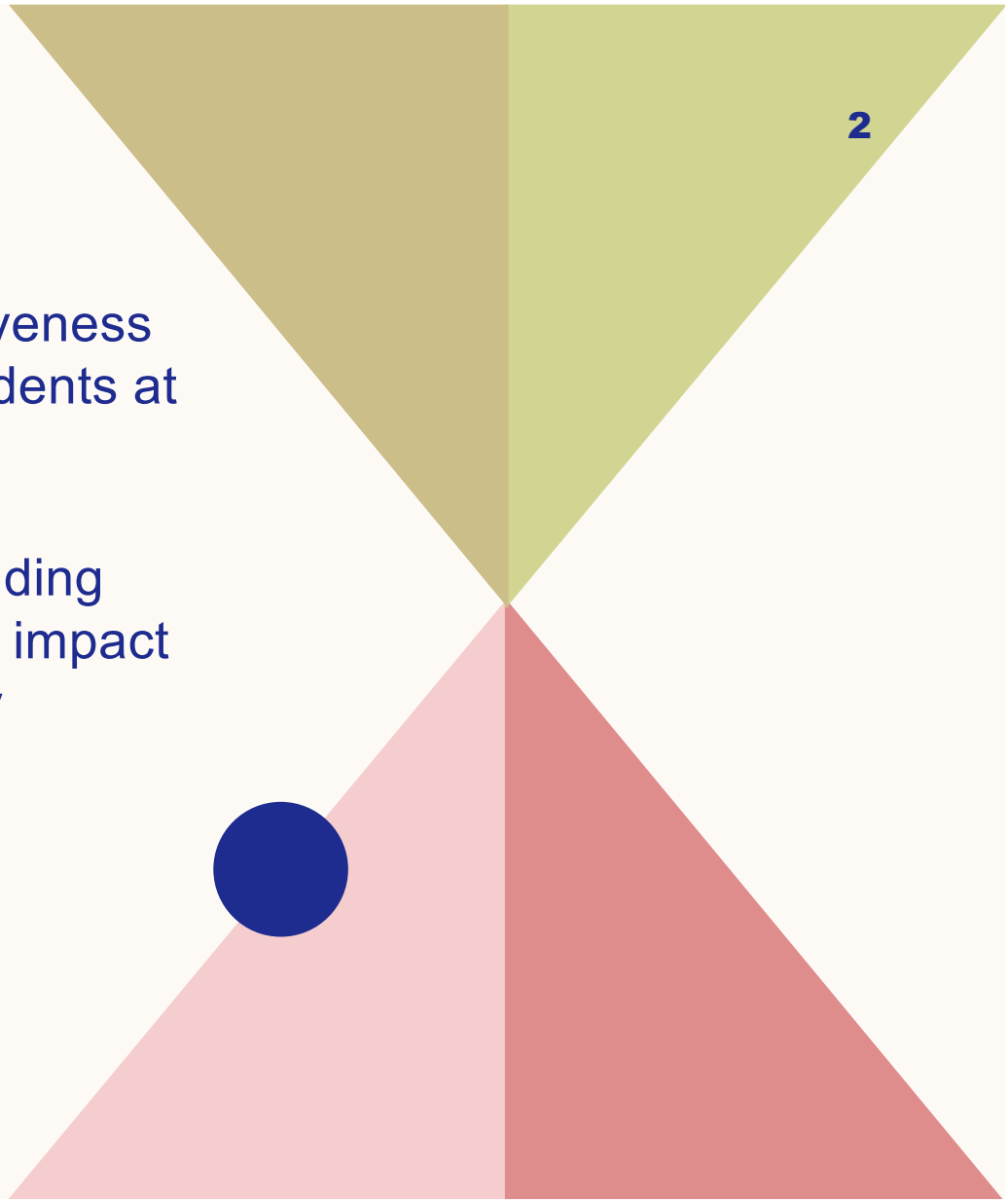
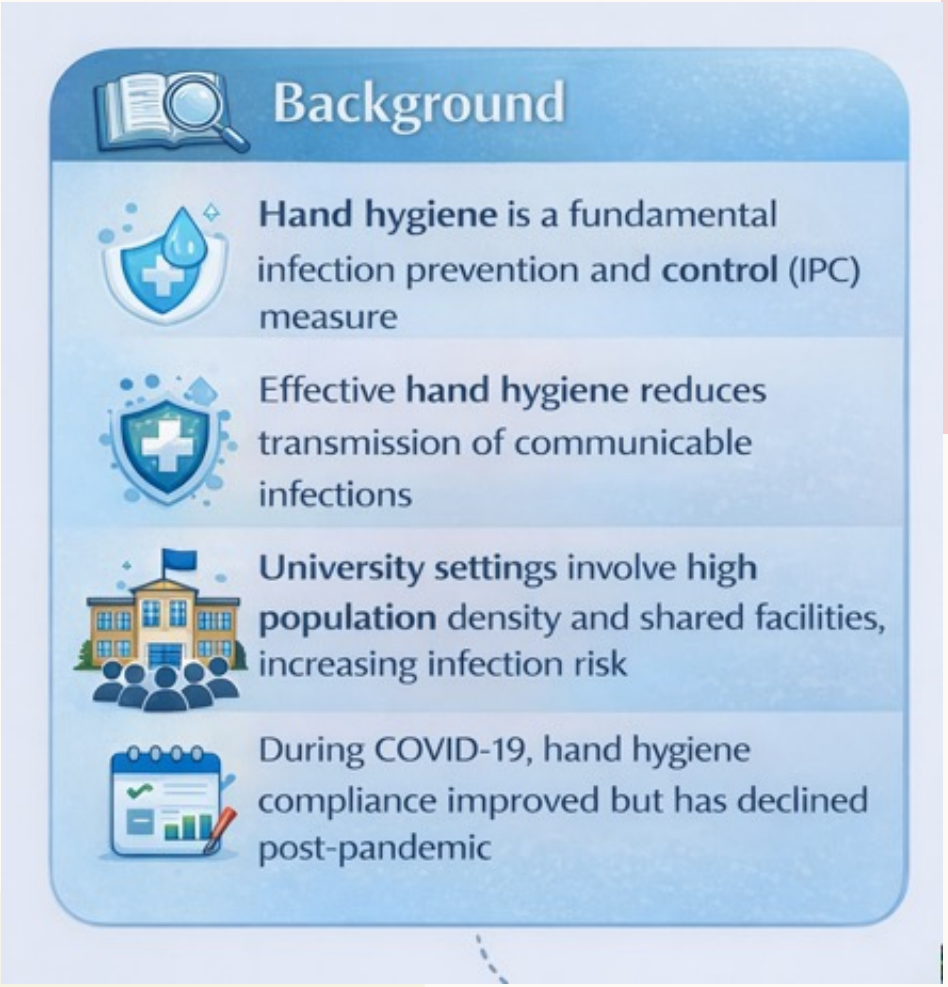


BACKGROUND:


Background
Hand hygiene is a fundamental infection prevention and control (IPC) measure
Effective hand hygiene reduces transmission of communicable infections
University settings involve high population density and shared facilities, increasing infection risk
During COVID-19, hand hygiene compliance improved but has declined post-pandemic

THE GLOBAL CHALLENGE:

About 2.3 billion people worldwide do not have a basic sanitation system.

Average of 19% of world population wash hands after using the toilet.

Study Hypothesis

Is there a significant association between hand hygiene practices and the occurrence of infections among university students at NMU?

Null Hypothesis (H_0)

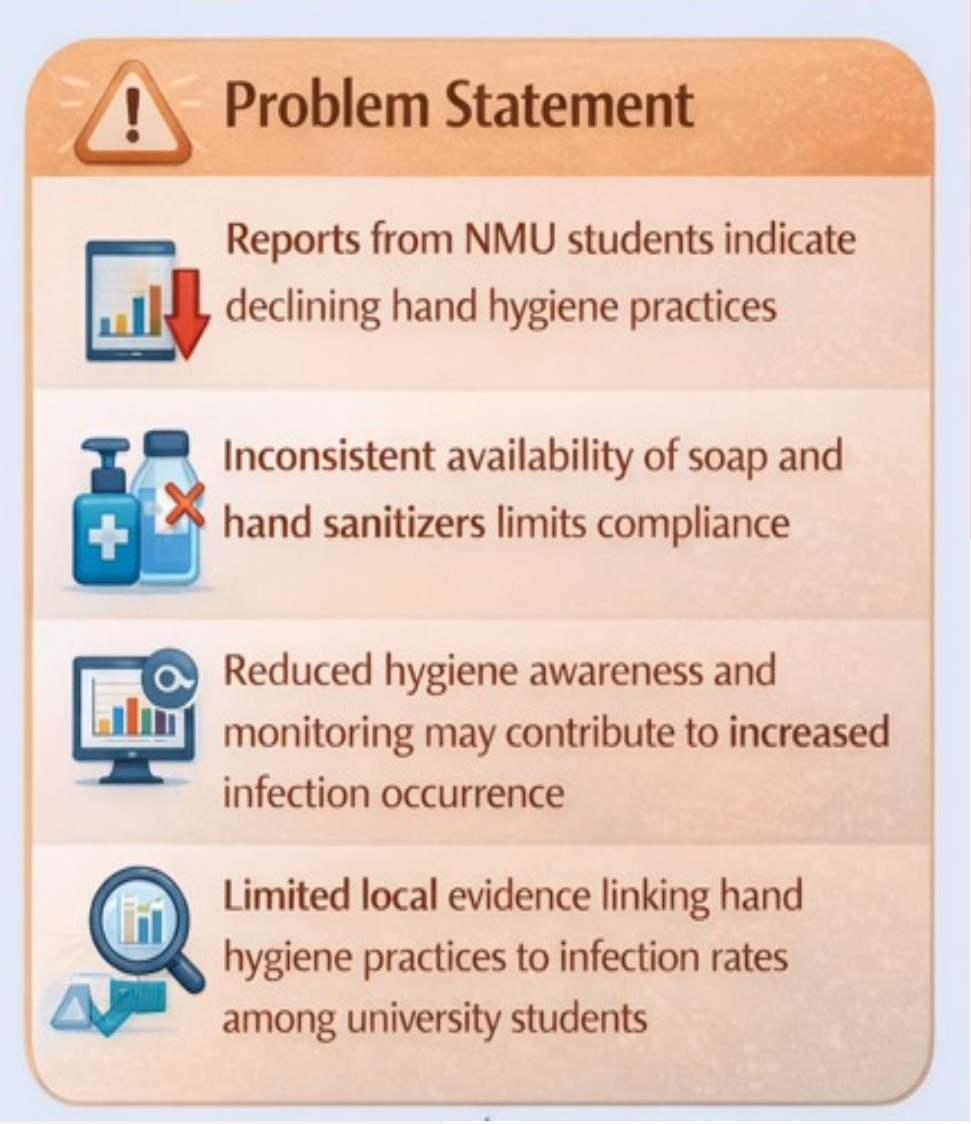
There is no significant association between hand hygiene practices and the occurrence of infections among university students at NMU.

VS

Alternative Hypothesis (H_1)

Poor hand hygiene practices are significantly associated with a higher occurrence of infections among university students at NMU.

PROBLEM STATEMENT:



WHY DOES HAND WASHING MATTERS:

- Critical vector for transmitting microorganisms
- Primary defence against various pathogens
- Simple but often neglected task

LITERATURE REVIEW:

Study Methods

Study Setting

Nelson Mandela University,
Eastern Cape, South Africa

Study Design

Quantitative Cross-Sectional Study

Study Population

Undergraduate & Postgraduate Students

Sampling Method

Stratified Random Sampling

Sample Size

n = 106 Students

Data Collection

Structured Questionnaire

Data Analysis

Descriptive & Multivariate Analysis

Ethical Considerations

- ✓ Ethical Approval
- ✓ Informed Consent
- ✓ Confidentiality

OVERVIEW OF QUESTIONNAIRES:

SECTION A

Demographics

SECTION B

Hand hygiene practices

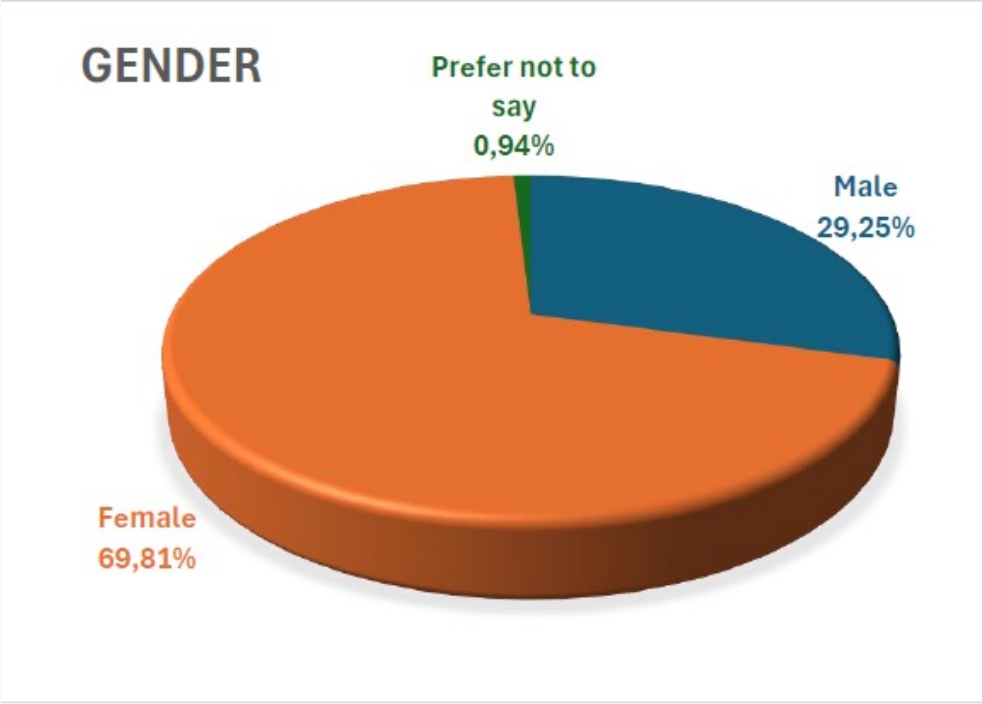
SECTION C

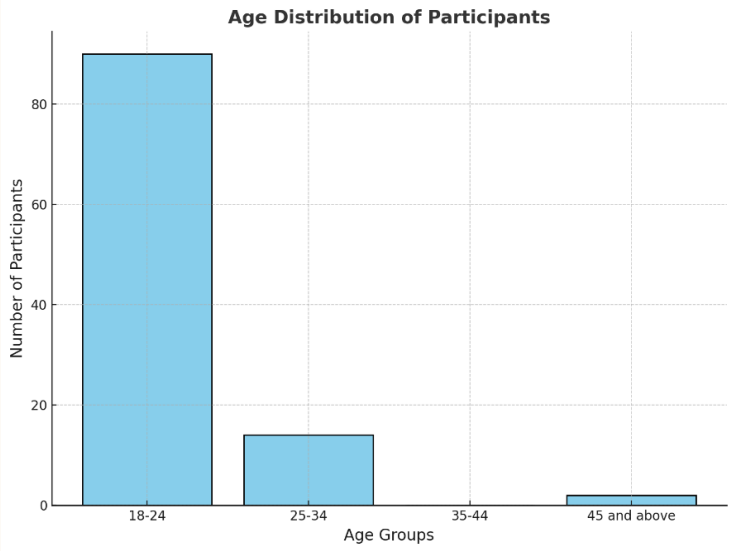
Infections acquired by students and behaviour in seeking assistance

SECTION D

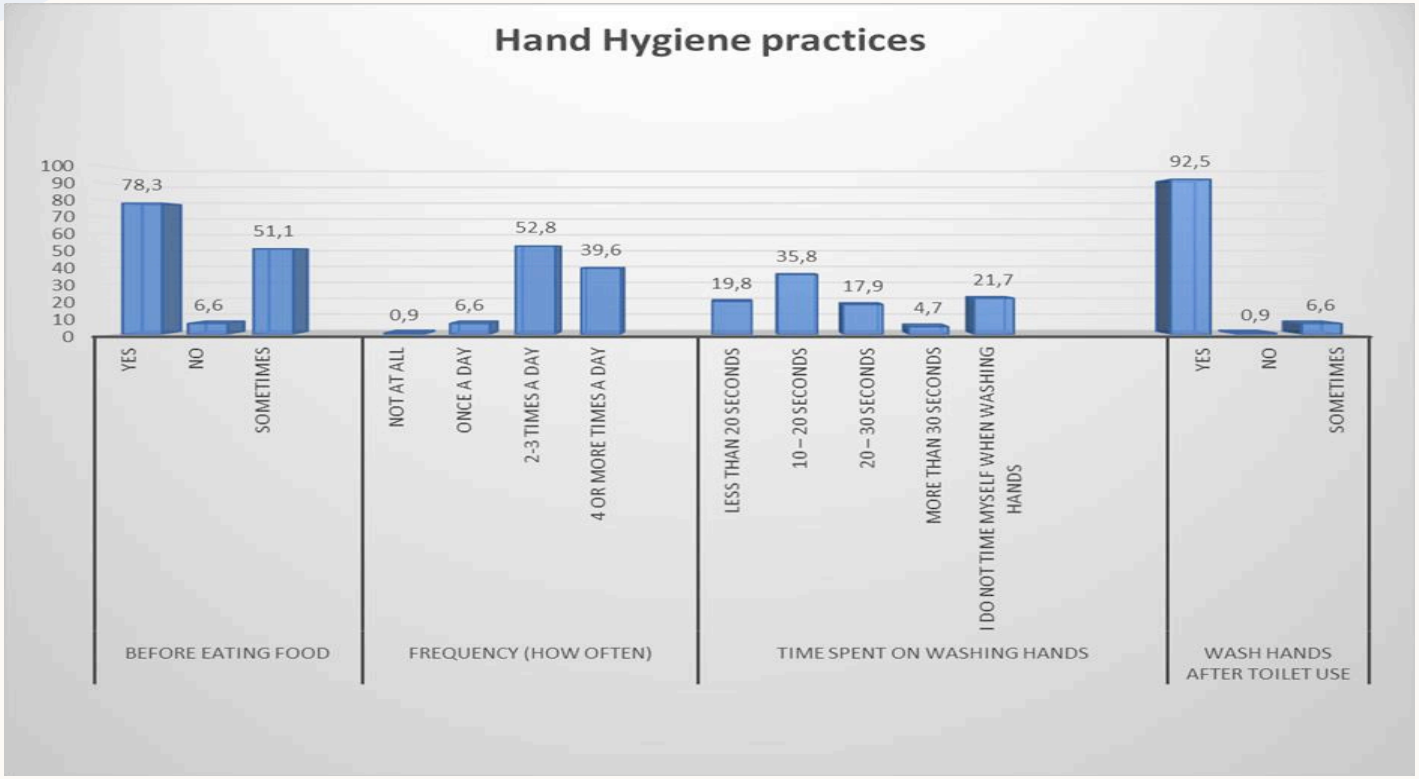
Additional information and insight into hygiene and infection prevention.

RESULTS SECTION A:





RESULTS SECTION B:



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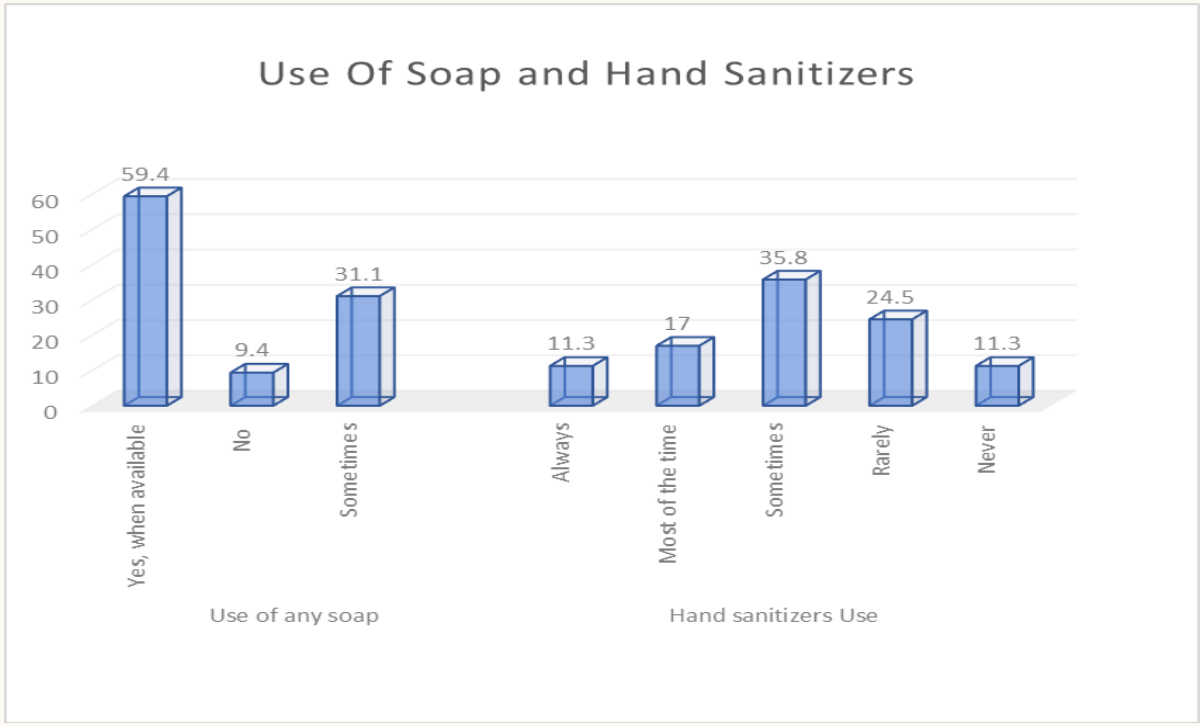
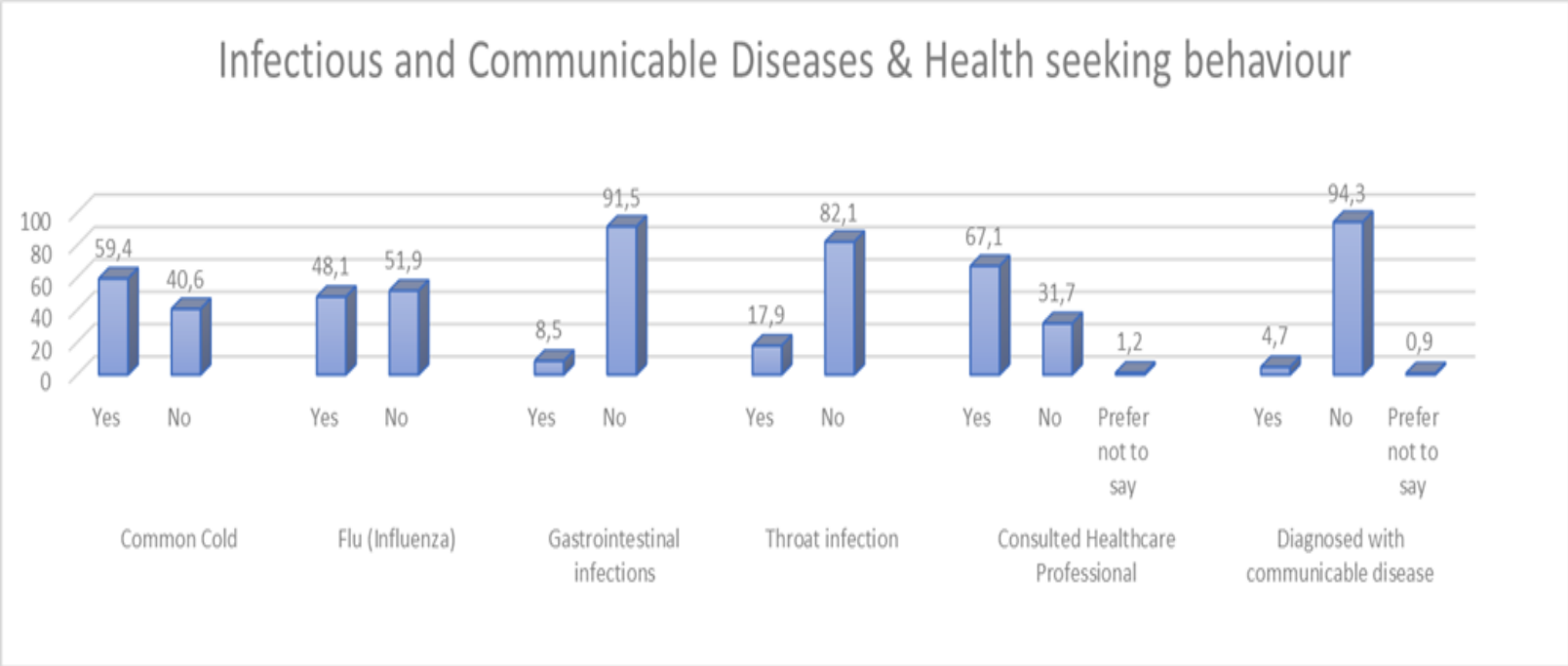


RESULTS SECTION C:



RESULTS SECTION D:

- Students indicated Concerns on Hand Hygiene at NMU
- 11% reported declining hygiene standards and poor monitoring
- 18% noted inadequate soap and sanitizer availability
- 7% called for renewed hygiene awareness and training post-COVID-19

FINDINGS:

- There was no statistically significant association between washing hands before meals and the occurrence of common illnesses such as colds, flu, gastrointestinal infections, or throat infections.

- Regular use of alcohol-based hand sanitizers was significantly associated with a lower prevalence of gastrointestinal infections;

- None of the students who consistently used sanitizers reported gastrointestinal infections.

DISCUSSION:

- The findings indicate that while handwashing alone may not significantly impact infection rates
- Consistent use of hand sanitizers may reduce gastrointestinal illness among students.
- These results underscore the need for targeted hygiene interventions and awareness campaigns within university settings to promote effective, evidence-based hand hygiene practices.

RECOMMENDATIONS:

- The research on the relationship between hand hygiene practices and their effects on disease occurrence needs more exploration.
- The study can be broadened by replicating it across different universities in South Africa.
- The relationship between hand sanitizers and diarrheal disease, specifically, can be focused on by the different universities in the country.

THANK YOU

https://ujcontent.uj.ac.za/esploro/outputs/graduate/The-effectiveness-of-hand-hygiene-in/9957403707691