

“Sanitation and Personal Hygiene Practices in Rural Nepal: A Case Study of Namobuddh Kavre District”

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Abstract

Namobuddha is a Buddhist pilgrimage site located in Kavre District, Nepal. The main purpose of this study was to understand the sanitation and personal hygiene practices of people of Namobuddha, Nepal. Altogether, 80 samples have been studied through field work methods by using different tools and techniques like scheduled questionnaires interview, focused group discussion, and observation methods. Data analysis was done through MS Excels. Sanitation and personal hygiene practices are the fundamental elements for a healthy life. This research found out that every respondent was practicing basic sanitation and personal hygiene practices. Every resident of the field area is aware about the personal hygiene practices such as washing hands, washing vegetables, eating healthy foods, doing their laundry, taking bath, etc. Also, they were aware about sanitation practices such as proper toilet facility, proper disposal of wastes from kitchen and other sources, healthy drinking water, and cleaning their surroundings. Hence, overall activity of the respondents

regarding sanitation and personal hygiene was satisfactory. Further, it was observed that females were more involved in sanitation and personal hygiene practices. They were involved in cooking, disposal of cooking wastages, cleaning the toilets, surrounding, washing clothes, making their children aware about unhealthy habits, etc. So, they have more knowledge on such practices and they know the consequences of unhealthy food habits and unhealthy surroundings. However, they had the problem with disposal of household wastages. Some of the households dispose of their wastes on the river due to lack of a proper disposal system. Thus, we were impressed by their awareness on sanitation and personal hygiene practice.

Keywords: sanitation, hygiene, health, practices

Introduction

Maintaining proper sanitation and personal hygiene is crucial for overall health, well-being, and progress. Numerous nations encounter obstacles in ensuring sufficient sanitation services for their entire populace, thereby exposing individuals to risks associated with waterborne diseases and poor hygiene. Basic sanitation entails having access to facilities that enable the safe disposal of human waste (such as feces and urine), along with the capability to uphold hygienic conditions. This includes services like waste disposal, hazardous waste management, and wastewater treatment. Alarminglly,

approximately 2.3 billion people (equivalent to around 29% of the global population) lack access to basic hygiene, which encompasses facilities like a handwashing station equipped with soap and water within their homes. Lack of sanitation and poor hygiene also severely limits the impact of other development interventions on education, health and rural and urban development. For the purposes of this document, the term "sanitation" refers to the management of human waste. The term hygiene is used to refer to the measures used in households and communities to break the chain of transmission of infection, including but not limited to the management of human waste. Sanitation is as old as man but it deals with man's environment. Sanitation is not a new science but is the heritage of thousands of years of actual experience and application. Hippocrates (460-370 B.C.), the father of medicine, wrote three books on hygiene and sanitation. According to many medical historians malaria played an important part in the downfall of the Grecian Empire. Hippocrates was the first man to describe this remittent fever and chills and an enlarged spleen. Personal hygiene refers to maintaining the body's cleanliness. The culture of bathing in Chinese literature dates back to the Shang Dynasty (1600-1046 BC). Inscriptions on the eye bones depict people washing their heads and bodies in a bath, indicating that people were concerned with personal hygiene. The importance of handwashing to human

health, especially for people in vulnerable situations such as pregnant women or wounded soldiers in hospitals, was first recognized in the mid-19th century by the Hungarian physician Ignaz Semmelweis, two pioneers of hand hygiene. She worked with Florence Nightingale, the British founder of modern nursing, in Vienna, Austria. The availability of sanitation simply improves health, well-being and economic productivity.

Hygiene includes toilet use, personal hygiene, environmental cleanliness, proper disposal of solid and liquid waste, and hygienic behavior. Toilets are considered an important and basic indicator of health and hygiene around the world. Good hygiene is a necessary condition for improving general health standards, work productivity and quality of life.

So, this study aims to find out the personal hygiene, sanitary conditions of the rural community of Nepal using an observational checklist to assess the sanitary condition and personal hygiene of people. Also, this report focuses on the overall sanitation and personal hygiene situation of Nepal.

Before 1990, Nepal had very low coverage of water supply and sanitation services. In 1990, it was estimated that only 36% of the population had access to water and only 6% had access to toilets. However, by 2000, the proportion of people with access to basic sanitation had increased significantly to 82%, a remarkable achievement. This progress in water supply may be the result of

government efforts in the 1990s to focus on this neglected sector of sanitation. Despite this improvement, the coverage of basic water supply facilities remained stagnant around 80 percent between 2000 and 2010. The government of Nepal struggled to enhance access to toilet facilities for the population before the declaration of the Millennium Development Goals.

In rural areas, most piped water stands are located in public places near households, with piped water connections to individual houses being less common. Only relatively affluent households manage to establish piped water connections to their residences through personal efforts. Data reveals that 35 percent of the wealthiest households have piped water access within their homes or courtyards, whereas households from the poorest quintiles are less likely to have such connections. Consequently, there exists a significant disparity in accessing and utilizing piped water between the rich and the poor.

Research Problem

Despite the recognized importance of personal hygiene and sanitation for public health, rural areas in Nepal, including Namobuddh Kavre, continue to grapple with substantial challenges in this regard. The lack of adequate education and resources impedes the adoption of proper sanitation and personal hygiene practices, leading to various health issues and a diminished quality of life among community members. Key issues contributing to this

problem include:

Perceptions of sanitation in the local environment.

Types of waste found and methods of waste disposal.

Personal hygiene conditions of individuals in the study area.

Diseases resulting from inadequate sanitation.

Awareness levels regarding personal hygiene among the population.

Objectives of the Study

The objective of this research is to assess the sanitation and personal hygiene practices among the rural population of Nepal.

Research Methods and Materials

A research design is crucial for guiding researchers in obtaining answers to research questions while controlling for various factors. This study employs both exploratory and descriptive research designs. The population universe comprises 550 households, with a purposive sampling method selecting 80 households in Namobuddha Kavre. Both qualitative and quantitative data were collected using interviews, questionnaires, and observation techniques.

Secondary data were gathered from published and unpublished sources, including journals, research reports, and previous studies.

Result and Discussion

General information

Table 1 Distribution of the respondents by sex

Gender	Number	Percentage
Male	30	37.5
Female	50	62.5
others	0	0
Total	80	100

Source: Field Survey, 2023

Table 1 represents the social stratification of respondents amongst male and females. As shown in the figure, 37.5 percent of the respondents were Male and 62.5 percent of respondents were Female and there were zero no. of other gender than male and female. Researchers have tried to get information from an equal number of male and female respondents to understand the perspective of both the genders. This also helped the research to be gender inclusive.

Ii Sanction and Hygiene Practices

Table 2 Hand washing methods of the respondents

Hand washing methods	Number	Percentage
Soap water	80	100
Water only	0	0
Ash/ soil with water	0	0

Total	80	100
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Source: Field Survey, 2023

Table 2 clearly shows that every person is aware of soap water. They use soap water after using the toilet, before cooking, and for many cleanliness purposes.

However, old people seem to use only water most of the time.

Table 3 Knowledge of sanitation of the respondents

Knowledge of sanitation	Number	Percentage
Yes	80	100
No	0	0
Total	80	100

Source: Field Survey, 2023

The knowledge of sanitation we were asking to respondents was about very general ones such as bathing, cleanliness, etc. So, it was clear that every respondent had basic knowledge of sanitation. Everyone had access to clean drinking water and a proper toilet system.

Table 4 Sanitary condition of the respondents

Sanitary condition	Number	Percentage
Satisfactory	60	75
Unsatisfactory	20	25
Total	80	100

Source: Field Survey, 2023

The sanitary condition of the respondent was done on the observation basis and found that 75 percent of respondents had satisfactory condition while 25 percent of them didn't. Satisfactory conditions include clean toilets, personal hygiene, proper dumping site, and clean environment.

Table 5 Personal hygiene practices of the respondents

Personal hygiene	Number	Percentage
Yes	64	80
No	16	20
Total	80	100

Source: Field Survey, 2023

The personal hygiene of the respondent was done on the observation basis and found that 80 percent of respondents had satisfactory condition while 20 percent of them didn't. Personal hygiene includes clean toilets, personal hygiene, proper dumping site, and clean environment.

Table 6 Health care and treatment status of the respondents

Treatments	Number	Percentage
Health Post	10	12.5
Private Clinic	20	25
Nursing Home	30	37.5
Government hospital	20	25
Dhami/jhakri	0	0

Total	80	100
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Source: Field Survey, 2023

This table shows the treatments when you suffer from illness followed by the respondents: 5 percent of respondents were Health post, 10 percent followed a Private clinic, 15 percent of them were Nursing homes, 10 percent of them were Government hospitals. A treatment is something that health care providers do for their patients to control a health problem, lessen its symptoms.

Table 7 Family members feel sick

Family members feel sick	Number	Percentage
Rarely	56	70
Sometimes	14	17.5
Frequently	10	12.5
Never	0	0
Total	80	100

Source: Field Survey, 2023

A lack of sleep, poor diet, anxiety, or stress can often cause a person to feel sick. These factors can make a person more susceptible to infection and illness. These shows include, personal hygiene, proper dumping site, and clean environment, a person may experience stomach discomfort.

Table 8 laundry activities per week of the respondents

Laundry activities per week	Number	Percentage
Once	20	25
Twice	30	37.5
Thrice or more	30	37.5
Total	80	100

Source: Field Survey, 2023

Table 8 shows that 37.5 percent of the family do laundry twice or thrice a week. It's normal to do laundry at least once a week. Wash towels, bedclothes, and pillowcases once a week or whatever timeline works for your family.

Table 9 Take a shower or bath per week by the respondents

Take a shower or bath per week	Number	Percentage
Once	0	0
Twice	20	25
Three time	30	37.5
Daily	30	37.5
Total	80	100

Source: Field Survey, 2023

The table shows that for many people, two to three times a week is enough and may be even better to maintain good health. Bathing daily is safe for the skin and may help you have more positive social interactions.

Table 10 Family clean house or yard

Family clean house or yard	Number	Percentage
Once	10	12.5
Daily	20	25
Two time a week	40	50
Three time or more	10	12.5
Total	80	100

Source: Field Survey, 2023

Most homeowners sweep and mop, vacuum, clean the bathroom, and dust furniture once a week. Clean kitchen counters and sweeping high-traffic floor areas are usually done on a daily basis. Living room and bedrooms should be attacked at least once a week.

Table 11 Washing vegetables before cooking

Washing vegetables before cooking	Number	Percentage
Yes	40	100
No	0	0
Total	40	100

Source: Field Survey, 2023

Table 11 shows that all respondents wash their vegetables and clean it properly before cooking and consuming. They are aware of the chemicals used in vegetables these days and wash it very properly.

Table 12 Consumption of food by the respondents

Consumption of food	Number	Percentage
Homemade food	15	37.5
Junk food	5	12.5
Simple food with minimum salt or oil	10	25
Food with spices	10	25
Total	40	100

Source: Field Survey, 2023

Table 12 shows that 37.5 percent of the respondents consume homemade foods. They consume from their own farm. However, 12.5 percent of people consume junk food as they are influenced by western culture of eating pizza, burger, and fast food. Also, 25 percent of the respondents consume simple food with minimum salt or oil. Similarly, 25 percent of the respondents consume food with spices.

Table 13 Use of toilets

Use of toilets	Number	Percentage
Yes	80	100
Open defecation	0	0
Total	40	100

Source: Field Survey, 2023

Table 13 depicts that every respondent is facilitated with a toilet facility. I

observed that every house has a toilet facility however, we cannot conclude their behavior of open defecation during an emergency.

Table 14 Cleanliness of toilets

Cleanliness of toilets	Number	Percentage
Once a week	10	12.5
Daily	70	87.5
Total	80	100

Source: Field Survey, 2023

Table 14 shows that nearly all respondents about 87.5 percent clean their toilets on a daily basis. Some 12.5 percent clean their toilet once a week. There were also respondents who clean their toilets every two, three days.

Table 15 Tools used for cleaning toilets

Family clean house or yard	Number	Percentage
Once	10	12.5
Daily	20	25
Two time a week	40	50
Three time or more	10	12.5
Total	80	100

Source: Field Survey, 2023

Table 15 shows that nearly all respondents about 25 percent clean their toilets on a daily basis. Some 12.5 percent clean their toilet once a week. About 50

percent clean their toilets two times a week. Some 12.5 percent clean their toilets three times or more. Toilet cleaners usually consist of a disc of cleaner that you deposit into the toilet tank. Some tools are used for cleaning toilets; powder toilet cleaners, toilet brushes, eye and hand protection, disposable toilet cleaning systems.

Table 16 Privacy in menstrual period (women) Respondents

Privacy in menstrual period	Number	Percentage
Yes	40	80
No	10	20
Total	50	100

Source: Field Survey, 2023

Table 16 clearly shows that every person is aware of privacy in the menstrual period for change and wash. 80% of the people are aware about that.

Table 17 Use during menstrual period (women respondents)

Types	Number	Percentage
Sanitary pads	50	100
Tampons	0	0
Clothes	0	0
Others	0	0
Total	50	100

Source: Field Survey, 2023

Table 17 shows that the normally respondent uses sanitary pads during the menstrual period. 100% respondent use sanitary pads more than others.

Table 18 Men aware about mensuration

Men aware	Number	Percentage
Yes	76	95
No	4	5
Total	80	100

Source: Field Survey, 2023

Table 18 shows that respondent family members were aware about menstruation. Out of 40 respondents 38 were about menstruation.

Table 19 Drinking water

Drinking water	Number	Percentage
Filter and approved	80	100
Impure	0	0
Total	80	100

Source: Field Survey, 2023

Table 19 shows that the respondent uses filters and approved water for drinking. In the survey found that 100% of respondents drink filters and approved.

Table 20 Measures to purify water used by the respondents

Types	Number	Percentage
Boiling	56	70

Iodine tablets	0	0
others	24	30
Total	80	100

Source: Field Survey, 2023

Table 20 clearly shows that all respondents used to drink purified and approved water. Normally 70% respondent used to boil water for purification and the rest of others used sealed jar for drinking water.

Table 21 Use same water for drinking, cooking and washing

Water	Number	Percentage
Yes	4	5
No	76	95
Total	80	100

Source: Field Survey, 2023

Table 21 shows that the respondents don't use the same water for drinking, cooking and washing purposes. Normally respondents use filters and approved water for drinking and cooking. And for washing, respondents used water from a local source.

Table 22 Condition of water resource

Condition	Number	Percentage
Clean	64	80
Polluted	16	20

Total	80	100
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Source: Field Survey, 2023

Table 22 clearly shows that 80% of water resources are clean and respondents can use clean water from resources where 20% of water resources are polluted.

Table 23 Wastages dispose or manage

Types	Number	Percentage
Rivers	0	0
Composting	10	12.5
Dumping sites	70	87.5
Incineration	0	0
Total	80	100

Source: Field Survey, 2023

Table 23 shows that the respondent used to collect the wastage and disposed of the wastage in the dumping site. They used to make fertilizer from kitchen wastage.

Table 24 Dispose of used water

Types	Number	Percentage
Sink connected to sewer	70	87.5
open ground	10	12.5
Total	80	100

Source: Field Visit, 2023

Table 24 shows that 87.5 percent of the respondents have proper access to the disposal of the water facility and 12.5 percent of them throw or dispose of water on the open ground. However, there was no mismanagement of the water in their house from my observation.

Conclusion

Namobudda Municipality is a newly designated body under Nepal's new constitution, which devolves powers to local governments through constitutional provisions and elected representatives. It is a municipality located in the central hills of the Mahabharata, east of the Kathmandu Valley, with high mountain ranges, large rivers and fertile mountain slopes and valleys. The residents of the site are divided into between the Tamang ethnic community, the Newar ethnic community and the Parbate community (including Bahun, Chhetri, and Dalit). In today's busy life people are not much more concerned about their personal hygiene and sanitation. But in the Namobuddha area people are aware about their hygiene. Hygiene is a collective effort to improve health and prevent disease in groups living in close proximity to one another. People need to know hygiene and be aware of each other. Public health is a collective effort to improve the health and prevent illness of people living near each other. Personal hygiene is lifestyle, hygiene practices, health and medicine. In medicine and everyday life, hygiene

methods are used as preventive measures to reduce the spread and spread of disease-causing microorganisms. Hygiene in kitchen, bathroom, washing hands, toilet, laundry hygiene, and respiratory hygiene should be maintained properly. So, people will be free from disease. Proper sanitation of yards, houses and the environment should be done. Sanitation and personal hygiene practices must be free from diseases. They should focus more on their hygiene. Through the findings of this research, we can see that people in that area are more concerned about their personal hygiene and sanitation practices, but they should be a bit more careful about their hygiene. Good personal hygiene includes keeping all external parts of the body clean and healthy. This is important for your physical and mental health. In people with poor personal hygiene, the body provides an ideal environment for the growth of microorganisms, making the body vulnerable to infection.

References

- Aiello, A. E., & Larson, E. L (2002). What is the evidence for a causal link between hygiene and infection? *Lancet Infect Dis.* 2: 103- 110.
- Aiello, A. E., & Larson, E. L (2002). Causal inference: the case of hygiene and health. *Am J Infect Control.* 60: 503- 510.
- Aiello, A. E., Coulborn, R. M, Perez, E, Larson, E. L (2008). Effect of hand hygiene on infectious disease risk in the community setting: a meta-

analysis. Am J Public Health.98: 1372- 81.

Ali, M.Y., Rahman, M.M., Siddiqui, M. H (2013) Mrs.

Aswathy S K. Knowledge and practice regarding environmental sanitation and hygiene among general population: A cross sectional survey. Global Journal for Research Analysis. Volume-4, Issue-11, Nov-2015.

Alyssa Vivas, Bizu Gelaye, Nigusu Aboset, et al. Knowledge, Attitudes, and Practices (KAP) of Hygiene among School Children in Angolela, Ethiopia. J Prev Med Hyg.2010 June; 51(2):73– 79.

Biswas, R (1990). A study of the impact of health education imparted to school children on their knowledge, attitude and practice in regard to personal hygiene. Ind J Pub Hlth. 34(2). 87- 92

Centers for Disease Control and Prevention, National Center for Emerging and Zoonotic Infectious Diseases(NCEZID), Division for Foodborne, Waterborne, and Environmental Diseases at CDC

<https://tkpo.st/3bygGNn> <http://apps.who.int/iris/handle/10665/258617>,

accessed 16 January 2019 Environmental sanitation guidelines, Rural Village Water Resources Management Project, 2009. World Health Organization and United Nations Children’s Fund Joint Monitoring Programme on Water Supply and Sanitation and Water Supply and Sanitation Collaborative Council.

- Curtis VA, Danquah LO, Aunger RV. Planned, motivated and habitual hygiene behaviour: an eleven country review. *Health Educ Res.* 2009; 4:655– 673. [PubMed: 19286894].
- Ejemot RI, Ehiri JE, Meremikwu MM, Critchley JA. Hand washing for preventing diarrhoea. *Cochrane Database Syst Rev.* 2008; 1 CD004265.
- Esrey SA et al. interventions for the control of diarrhoeal diseases among young children: improving water supplies and excreta disposal facilities. *Bulletin of world Health Organization* 1985,63(4).
- Isaac Monney, Dominic Agye and Wellington Owusu. Hygienic Practices among Food Vendors in Educational Institutions in Ghana: The Case of Konongo. *Foods* 2013, 2, 282-294; doi:10.3390/foods2030282
- Feglo, P.; Sakyi, K. Bacterial contamination of street vending food in Kumasi, Ghana. *J. Med. Biomed. Sci.* 2012, 1, 1–8
- M Bhattacharya, V Joon, V Jaiswal. Water handling and sanitation practices in rural community of Madhya Pradesh: a knowledge, attitude and practice study. *Indian J. Prev. Soc. Med.* Vol.42 No.1,2011.
- M, White GL Jr. Kim HS. Inexpensive and time-efficient hand hygiene interventions increase elementary school children’s hand hygiene rates. *J Sch Health.* 2008; 78:230–233. [PubMed:18336683
- Osaili,T.M.; Abu Jamous, D.O.; Obeidat, B.A.; Bawadi, H.A.; Tayyem, R.F.;

Subih, H.S. Food safety knowledge among food workers in restaurants in Jordan. *Food Control* 2013, 31,145–150.

O’Loughlin R. Follow-up of a low cost latrine promotion programme in one district of Amhara, Ethiopia: characteristics of early adopters and non-adopters. *Tropical Medicine and International Health*. 2006; 11:1406–15.
[PubMed:16930263]

Oswald WE, Hunter GC, Lescano AG, Cabrera L, Leontsini E, Pan WK, et al.
Direct observation of hygiene in a Peruvian shantytown: not enough handwashing and too little

RB Sah, S Bhattarai, DD Baral, PK Pokharel. Knowledge and Practice towards hygiene and sanitation amongst residents of Dhankuta Municipality. *Health Renaissance* 2014;12(1):44-48

Reshma, Mamatha S. Pai, Manjula. A Descriptive Study to Assess the Knowledge and Practice Regarding Water, Sanitation and Hygiene among Women in Selected Villages of Udupi District. *Nitte University Journal of Health Science NUJHS* Vol. 6, No.1, 2016, March.

T. S (2010). Personal hygiene, Knowledge, Attitude and Practice of Secondary School Students in Ikeja. <https://www.scibd.com/doc/36903339>. Biswas, A.B., Roy, A.K., Das, K.K., San, A.K.

UNICEF, The state of World’s children, UN, New York, 1988.

United Nations Children's Fund. Soap, Toilets, and Taps. A Foundation for Healthy Children. [Accessed August 5, 2009]. Available at:

[www.unicef.org/wash/files/FINAL water](http://www.unicef.org/wash/files/FINAL_water.pdf). Trop Med Int Health. 2008; 13:1421–1428. [PubMed: 19055623]

WHO/UNICEF Joint Monitoring Program for Water Supply and Sanitation, Global water supply and sanitation assessment, report, 2000. WHO, Geneva.

[http://www.who.int/water sanitation health/monitoring/jmp2000.pdf](http://www.who.int/water_sanitation_health/monitoring/jmp2000.pdf)
[accessed 30 October 2006]

World Health Organization. Water Sanitation and Hygiene, Facts and Figures, March 2004. W HO, Geneva. [http://www.who.int/water sanitation health/publications /facts figures04/en/](http://www.who.int/water_sanitation_health/publications/facts_figures04/en/) [accessed 30 October 2006]