

# Hygiene, Probiotics, and Health: A Comprehensive Guide to Well-being of Murud-Janjira Taluka

Javid Khan, Ghare Humera and Vidya Pradhan

Department of Zoology, Anjuman Islam Janjira Degree College of Science, Murud-Janjira, Raigad, MS, India<sup>1</sup>

Department of Zoology, Dr. Rafique Zakaria College for Woman's, Aurangabad, MS, India<sup>2</sup>

Corresponding author: javidkhan.maniyar@aijdegrecollege.edu.in

**Abstract:** *This research aims to assess the current level of awareness regarding health and hygiene issues and their impact on community health and hygiene. The interconnection between health and hygiene is significant. Factors such as the consumption of contaminated drinking water, unhealthy diet habits, inadequate environmental sanitation, and poor personal and food hygiene practices are major contributors to various diseases, particularly in developing countries like India. These diseases encompass both communicable and non-communicable ones. Substance abuse weakens the immune system and adversely affects mental and social well-being. Probiotics, commonly known as "Health Friendly Bacteria," are live microorganisms present in fermented foods and cultured milk. They offer numerous health benefits, including boosting the immune system and treating skin and oral ailments.*

**Keywords:** Probiotics, Hygiene, Prebiotics, communicable and non-communicable diseases

## I. INTRODUCTION

Health refers to a condition of overall physical, mental, and social well-being, characterized by the absence of disease and illness. (Kechagia 2012). Diseases are commonly recognized as medical conditions characterized by specific signs and symptoms. Communicable diseases are illnesses caused by infections from microorganisms known as pathogens, which can be transmitted from one individual to another. These pathogens include bacteria, viruses, protozoa, and fungi, all of which can cause diseases that spread among organisms (Balakrishnan 2016). A vaccine is a biological substance that offers active acquired immunity against a specific infectious disease. Various factors contribute to good health and prevent illness, including genetic, environmental, dietary, and lifestyle factors such as regular exercise, abstaining from smoking, and limiting alcohol consumption. Probiotics are live microorganisms that, when ingested in adequate amounts, provide health benefits to the host. Some significant health advantages associated with probiotics include the improvement of gastrointestinal microflora, enhanced immune system function, reduced serum cholesterol levels, cancer prevention, and improved lactose metabolism. Hygiene comprises a set of practices aimed at maintaining health (Sekhon H, 2014). The primary sources of infection in households include individuals (who may be carriers or infected), food (especially raw), water, and domestic animals. Pathogens are continually released from these sources through mucous membranes, feces, vomit, skin scales, etc. Inadequate sanitation is a major contributor to diarrheal diseases. Respiratory viruses and fungal spores can be transmitted through the air.

## II. METHODS AND MATERIALS

An online survey was conducted by the Department of Zoology, Anjuman Islam Janjira Degree College of Science, Murud-Janjira, Dist- Raigad. The survey, created using Google Forms, was distributed via WhatsApp. It comprised questions related to health and hygiene maintenance, as well as inquiries about probiotics and their effects.

**Table 1:** Questionnaire on Hygiene, Probiotics, and Health.

Questionnaire	Questions
Q.1	Do you believe that physical exercise plays an important role in maintaining good health?
Q.2	Vaccines are able to...

- Q.3 How often do you believe we should take probiotics?
- Q.4 Which of the following diseases can be spread due to inadequate personal hygiene?
- Q.5 What type of organisms are eliminated by disinfectants?

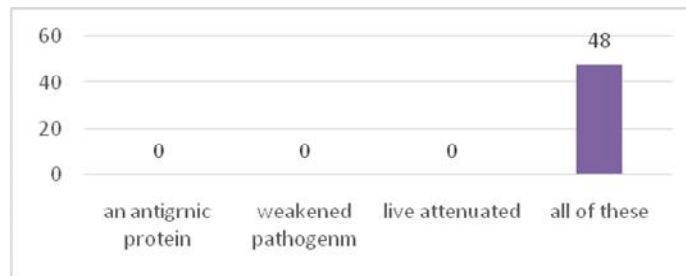
**III. RESULTS**

**Physical exercise plays an important role in maintaining good health?**

Physical exercise helps keep us physically and mentally fit, boosts our immunity, keeps our bodies active, and contributes to better overall health. 48 individuals are interested in physical exercise.

**People are aware of the importance of vaccines.**

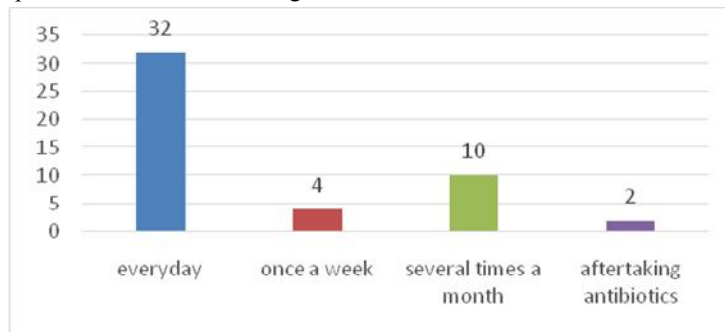
Figure 1 clearly indicates that people are highly aware of health and vaccines. Vaccines, which protect us from various diseases, are composed of antigenic proteins, weakened pathogens, and live attenuated pathogens. The survey respondents were well-informed about vaccines.



**Figure.1.** Number of peoples aware about vaccine.

**Regular intake of probiotics**

In Figure 2, the graph illustrates that out of 48 people surveyed, 32 consumed probiotics daily, 10 took them several times a month, 4 took them once a week, and two used them after taking antibiotics. While probiotics are beneficial for health, excessive consumption can lead to infections, diarrhea, and increased histamine levels. Therefore, probiotics should be taken in appropriate amounts and at the right times.



**Figure 2:** Often consumption of Probiotics in a society.

**Poor personal hygiene contributes to the spread of disease.**

Figure 3 indicates that poor personal hygiene is the primary cause of disease transmission, while other factors are less significant. Maintaining personal hygiene can prevent many diseases such as skin infections, food poisoning, diarrhea, and conditions like head lice.

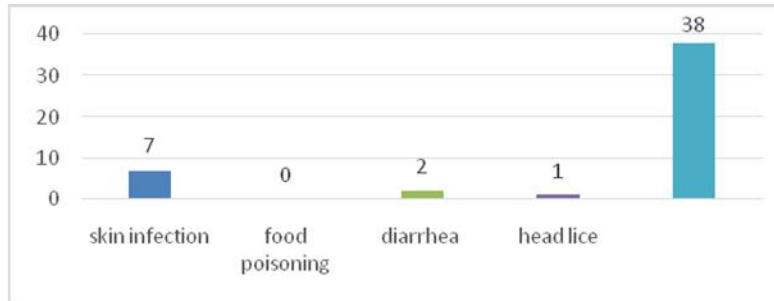


Figure.3. Incidence of disease in unhygienic person

**Disinfectants kill organisms.**

Figure 2 results showed that the majority of respondents (35) agreed that disinfectants kill microorganisms, while a small number of respondents disagreed with this statement. Disinfectants are essential for good hygiene practices, as they eliminate organisms such as yeast, mold, bacteria, and viruses, making surfaces free from contamination.

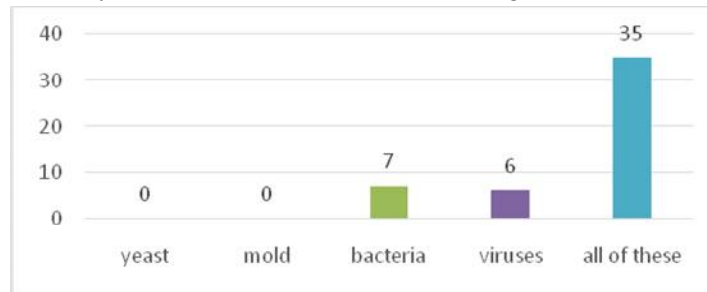


Figure.4. disinfectant killed Microorganisms.

**IV. DISCUSSIONS AND CONCLUSION**

A survey indicates the number of people aware of health, probiotics, and hygiene. It covers topics such as the proper methods of maintaining health, diseases caused by poor health maintenance, drugs that weaken the immune system and can impact social and mental health, and the effectiveness of vaccines against diseases caused by bacteria and viruses (Ishibashi N, 2001). The findings indicate that people are well-informed about probiotics and their benefits, such as aiding in digestive problems, treating diarrhea, improving mental health, and maintaining heart health. However, it is important to note that probiotics also have some disadvantages, including increasing histamine levels, causing infections, triggering allergic reactions, and leading to unpleasant digestive disorders. The survey also highlighted the importance of hygiene, with the majority of respondents agreeing that good hygiene practices, both personal and environmental, should be maintained by everyone (Nath K., 2010). Poor personal hygiene can lead to various health issues such as diarrhea, typhoid, and dysentery. These conditions can increase the risk of poor physical growth.

**REFERENCES**

- [1]. Kechagia M., Basoulis D.,(2012) “Health Benefits of Probiotics : A Review, Hindavi Publishing Corporation, ISRN Nutrition, vol no. Pp. 3.
- [2]. Balakrishnan K., Thiagarajah K.et al. (2016). Beneficial properties of probiotics. Tropical Life Science Research 27(2): 73-74.
- [3]. Dr. Sekhon H., Dr. Minhas S.,(2014) “A school based survey on hygiene in an urban area of North India”. Scholars Academic Journal of Bioscience, vol. 2(8). Pp.499-500.
- [4]. Ishibashi N. and Yamazaki S. (2001). Probiotics and safety. The American Journal of Clinical Nutrition 73(2): 465-470
- [5]. Nath K., Chowdhury B. et al. (2010). Study on perception and practice of hygiene and impact on health in India. 84(3):Pp. 10