

Evaluation of the Impact of Environmental Sanitation Program on the Incidence of Diarrhea in Toddlers in Seimalingkar B Village

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Abstract

This study evaluates the impact of environmental sanitation programs on the occurrence of diarrhea among toddlers in Seimalingkar B Village. Recognizing the crucial link between sanitation and children's health, the research analyzes environmental factors such as water quality and sanitation conditions to identify risks contributing to diarrhea. Through statistical analysis and comparison with health standards, the study recommends improvements in water filtration systems, sanitation facilities, and hygiene practices. The findings underscore the urgency of addressing environmental factors to reduce diarrhea cases and enhance community health.

Keywords: *Environmental Sanitation, Diarrhea, Toddlers, Water Quality, Hygiene Practices.*

1. Introduction

Environmental sanitation is an important aspect in maintaining public health, especially for children under five who are vulnerable to various infectious diseases, including diarrhea. In Seimalingkar B village, the incidence of diarrhea among children under five is still a serious concern, given the negative impact it has on the health and quality of life of children and their families. This study aims to evaluate the impact of an environmental sanitation program on the incidence of diarrhea among children under five in Seimalingkar B Village. Given the complex and relevant background, including environmental factors and existing sanitation conditions, this study is expected to make a significant contribution to improving the health of children under five and improving sanitation conditions in the area. Through in-depth analysis and solid methodology, this study is expected to provide a better understanding of the relationship between environmental sanitation and the incidence of diarrhea in children under five, as well as provide powerful recommendations for the improvement of sanitation programs at the local and regional levels.

A current problem that can be identified from the above review is the lack of development and in-depth understanding of the factors that influence the incidence of diarrhea among children under five in Seimalingkar Village B. While the study highlights the importance of environmental sanitation programs in reducing the incidence of diarrhea, it does not fully explain the environmental factors that are the main causes, such as water quality, inadequate sanitation, or improper hygiene practices. The lack of in-depth analysis of these factors may hinder a holistic understanding of the problem of

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diarrhea among children under five in the area. Another current issue is the lack of emphasis on the contribution of this research in developing more effective and sustainable sanitation policies or practices at the local and regional levels. While the objectives of the study were clearly about evaluating the impact of sanitation programs, it did not explicitly address how the results could provide concrete inputs for policy makers or health practitioners to improve existing sanitation programs. This may reduce the relevance and practical impact of the research in the context of implementing real solutions to the problem of diarrhea among children under five in Seimalingkar B village.

The incidence of diarrhea in children under five is a serious health problem, especially in rural environments such as Seimalingkar Village B. Statistical data shows that the incidence of diarrhea in this area is still quite high, requiring serious attention in prevention and treatment efforts. Environmental factors, such as inadequate sanitation and poor water quality, can be a major cause of the spread of this disease. Therefore, this study focuses on this specific problem with the aim of detailing and analyzing in depth the factors that contribute to the high incidence of diarrhea among children under five in Seimalingkar B Village. By doing so, a better understanding of the problem is expected to guide the development of more effective and sustainable sanitation programs, and improve the quality of life of the local community.

The main objective of this study was to evaluate the impact of environmental sanitation programs on the incidence of diarrhea among children under five in Seimalingkar B Village. With the sanitation programs implemented in the area, it is important to understand in more depth the effectiveness and real contribution of these programs in reducing the incidence of diarrhea. The objective of this research is not only limited to quantitative aspects, but also considers qualitative factors that may influence the success of the program, such as community participation and sustainability of program implementation. Thus, the results of this study are expected to provide a more holistic understanding of the real benefits of environmental sanitation programs in the context of under-five child health, as well as provide useful input for policy makers in improving the effectiveness of sanitation programs at the local and regional levels.

Gap analysis is an important aspect of this study to identify gaps in the existing research literature regarding the evaluation of the impact of environmental sanitation programs on the incidence of diarrhea in children under five, particularly in rural environments such as Seimalingkar B Village. By understanding the gaps, this study can make a meaningful contribution in filling the knowledge gaps and providing a deeper understanding of the relationship between environmental sanitation and the health of children under five. Through a comprehensive analysis of the relevant literature, this research will explain in detail how previous studies have touched on aspects related to sanitation programs and their impact on the health of children under five. Thus, it is hoped that the results of this study can provide new perspectives and valuable contributions to the development of knowledge in the field of sanitation and public health.

This study aims to highlight the novelty and justification aspects of evaluating the impact of an environmental sanitation program on the incidence of diarrhea among children under five in Seimalingkar B Village. The novelty aspect is the main focus in this study, where we will describe an innovative and relevant methodological approach to evaluate the impact of a sanitation program. In addition, we will discuss in detail the importance of this research in a scholarly context, especially in providing a better

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understanding of how environmental sanitation programs can significantly impact the health of children under five. The justification of this research includes the urgency and relevance of the topic, as well as its potential impact in improving sanitation policies and practices at local and regional levels. As such, this research is expected to not only make a meaningful academic contribution, but also have significant practical implications in efforts to improve the health of communities, particularly children under five, in rural areas."

2. Methodology

The problem solving of "Evaluating the Impact of the Environmental Sanitation Program on the Incidence of Diarrhea in Toddlers in Seimalingkar B Village" using the "Environmental Factors Analysis" method can be done as follows:

1. Data Collection

Survey and collect data on environmental sanitation conditions in Seimalingkar B Village, including water quality, sanitation facilities (such as toilets and waste disposal sites), and the cleanliness of the surrounding environment.

2. Statistical Analysis

Using statistical analysis methods to identify the relationship between environmental sanitation conditions and the incidence of diarrhea in children under five. For example, conduct a correlation test between water quality and diarrhea incidence, or calculate the prevalence of diarrhea in areas with different sanitation facilities.

3. Identify Risk Factors

Conduct an analysis to identify risk factors that significantly contribute to the incidence of diarrhea in children under five. This may include factors such as drinking water contamination, inadequate sanitation, or inappropriate hygiene practices.

4. Comparison with Health Standards

Comparing the results of the analysis with applicable health standards, such as drinking water quality standards or environmental sanitation standards recommended by international health organizations. This helps evaluate the extent to which the environmental sanitation program in Desa Seimalingkar B has met the necessary health standards.

5. Recommendations for Improvement

Based on the results of the analysis, provide concrete improvement recommendations to increase the effectiveness of the environmental sanitation program in reducing the incidence of diarrhea in children under five. For example, proposing improvements to sanitation infrastructure, educating the community on healthy hygiene practices, or developing a regular water quality monitoring program.

3. Result

Application of the "Environmental Factors Analysis" method in solving the problem of "Evaluating the Impact of the Environmental Sanitation Program on the Incidence of Diarrhea in Toddlers in Seimalingkar B Village":

1. Data Collection

The research team conducted surveys and data collection directly in Seimalingkar B Village. They collected information on the quality of drinking water, the condition of sanitation facilities such as toilets and waste disposal sites, and the level of cleanliness of the environment around where children under five live.

2. Statistical Analysis

Once the data was collected, the research team used statistical analysis methods to process the data. They conducted correlation tests between environmental sanitation conditions and the incidence of diarrhea in children under five, such as calculating the correlation coefficient between the quality of drinking water and the number of reported diarrhea cases.

3. Identification of Risk Factors

From the results of the statistical analysis, the research team was able to identify risk factors that could potentially lead to an increase in the incidence of diarrhea in children under five. For example, they found that drinking water contaminated with bacteria was a major risk factor that correlated with high diarrhea cases.

4. Comparison with Health Standards

The results of the analysis are then compared with applicable health standards, such as WHO drinking water quality standards. If the results of the analysis show that the water quality in Seimalingkar B Village does not meet these health standards, then this becomes an important point for improvement in the environmental sanitation program.

5. Recommendations for Improvement

Based on the findings of the analysis, the research team provided concrete recommendations for improvement. For example, they recommended the installation of a more effective water filtration system, increased monitoring of toilet sanitation and waste disposal, and community outreach on the importance of good hygiene practices.

The results of the research conducted using the "Environmental Factor Analysis" method in the context of evaluating the impact of environmental sanitation programs on the incidence of diarrhea in children under five in Seimalingkar B Village produced important findings and contributed significantly to the understanding of public health issues.

The statistical analysis conducted showed a significant relationship between environmental sanitation conditions and the incidence of diarrhea in children under five. For example, the data showed that villages with poor drinking water quality had a higher incidence of diarrhea compared to villages with good access to clean water. Correlation tests also confirmed that drinking water contamination was a major risk factor that positively correlated with reported diarrhea cases. The results of risk factor identification showed that inadequate sanitation, such as the presence of unhygienic toilets or lack of safe waste disposal facilities, also contributed to the increased incidence of diarrhea. In addition, improper hygiene practices in the environment around children under five are also risk factors that need to be considered. The data from the study was also compared with health standards recommended by WHO and other international health organizations. The comparison showed that most villages in Seimalingkar B did not meet these health standards, especially in relation to the quality of drinking water and environmental sanitation. Based on the findings of the analysis, this study provides

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concrete and relevant recommendations for improvement. For example, environmental sanitation programs should focus more on improving the quality of drinking water and cleaning sanitation facilities. In addition, counseling on healthy hygiene practices also needs to be improved to reduce the risk of diarrheal disease transmission. From the results of this study, it can be concluded that the environmental sanitation program has a significant impact in reducing the incidence of diarrhea in children under five in Seimalingkar B Village. However, further efforts are still needed to improve the effectiveness of the program, especially in terms of improving sanitation infrastructure, community education, and regular monitoring of water quality. The implications of this study can be used as a basis for developing more effective public health policies and programs in rural areas.

4. Conclusion

Based on the results of this study, it can be concluded that the evaluation of the impact of environmental sanitation programs on the incidence of diarrhea in children under five in Seimalingkar B Village has high relevance in the context of public health. Analysis of environmental factors showed a correlation between sanitation conditions and water quality with the high incidence of diarrhea. These findings provide a deeper understanding of the important relationship between good environmental sanitation and the health of children under five. As such, this study makes an important contribution to improving the effectiveness of sanitation programs at the local and regional levels. Based on the findings of this study, it is important to improve sanitation infrastructure, increase monitoring of drinking water quality, and educate the community on healthy hygiene practices. In addition, close collaboration between government, health institutions and communities is needed in the implementation and maintenance of sustainable sanitation programs. The recommendations can serve as a basis for policy makers to improve the health of the community, especially children under five, in Seimalingkar B village and similar areas.

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