



## **Impact of Health Education on Hygiene Practices Among Artisans in Warri South Local Government Area**

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### **Abstract**

Artisans in Warri South Local Government Area of Delta State, Nigeria, face considerable health risks due to poor hygiene practices in their work environments. Despite their critical role in the local economy, these workers often lack access to effective health education, exacerbating their vulnerability to health issues and posing broader public health risks. This study investigates the impact of health education on the hygiene behaviors of artisans in Warri South, aiming to enhance understanding of how educational interventions can improve hygiene practices and health outcomes. The study employed a descriptive survey and quasi-experimental designs to assess the current level of hygiene awareness and practices among artisans, evaluate the influence of health education on their hygiene behaviors, and identify barriers to effective education. A sample of 150 artisans, randomly selected from five major areas within Warri South, participated in the study. Data were collected using a structured questionnaire with a 4-point Likert scale, and analyzed through descriptive and inferential statistics. Findings revealed that health education significantly improved artisans' hygiene knowledge, practices, and attitudes. Specifically, health education interventions led to enhanced awareness, better adherence to hygiene practices, and positive changes in health attitudes. However, barriers such as limited access to resources and resistance to change were identified as challenges to effective health education. The study concludes that targeted health education programs are effective in improving hygiene behaviors among artisans, contributing to better health outcomes and reduced disease prevalence. Recommendations were made included amongst others that government health agencies should develop and implement more accessible and targeted health education programs for artisans; Artisan unions should collaborate with public health organizations to organize regular hygiene training and workshops.

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**Keywords:** Impact, Health, Education, Hygiene Practices, Artisans

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### **Introduction**

Health education is a critical pillar of public health, essential for fostering healthier practices and reducing the incidence of communicable diseases. It plays a pivotal role in enhancing knowledge and influencing attitudes toward healthier behaviors, which is particularly significant in communities with low health literacy (Glanz et al., 2018). This importance is especially pronounced in developing regions like Niger-Delta of which Delta State which encompassing Warri South Local Government Area is located where traditional practices often persist, and where health education can make a substantial impact. Understanding the role of health education in improving hygiene practices among artisans is crucial, especially in areas like the Niger-Delta, specifically Warri South Local Government Area of Delta State, Nigeria.

Artisans—such as carpenters, mechanics, electricians, and tailors—constitute a significant portion of the informal workforce in Warri South. These workers face heightened health risks due to inadequate hygiene practices in their work environments. Limited access to health education further exacerbates their vulnerability to infections and diseases (Fawole & Kayode, 2015). Effective health education interventions can play a transformative role by improving hygiene practices among these artisans, thereby enhancing their health outcomes and reducing disease transmission within their communities. The concept of hygiene encompasses personal, domestic, and community

practices that promote cleanliness and prevent disease spread. Personal hygiene includes activities such as regular handwashing and oral care, crucial for preventing illness and maintaining health. For instance, proper handwashing has been shown to reduce the incidence of diarrheal diseases (Oyibo, 2015), while maintaining oral hygiene is vital for preventing oral diseases (Abiodun-Solanke et al., 2018). Domestic hygiene involves practices like proper waste disposal and safe food handling, which are essential for preventing foodborne illnesses (Fashae et al., 2016). Community hygiene focuses on maintaining clean environments, which include access to clean water and sanitation facilities, as well as public health campaigns (Ezeh et al., 2019).

Empirical studies underscore the importance of health education in improving hygiene behaviors. Research by Oloruntoba et al. (2022) demonstrated that health education enhances hygiene behaviors among schoolchildren, while Campbell et al. (2015) showed improvements in hand hygiene practices among healthcare workers in resource-limited settings. Despite these findings, there is a notable gap in research focusing specifically on artisans in Warri South, Delta State. This gap highlights the need for localized studies that address the unique socio-economic and cultural factors influencing hygiene practices in this region. Several studies have examined the impact of health education on artisans' hygiene practices. Oladipo and Oni (2020) found that health education significantly increased artisans' awareness of hygiene risks. Similarly, Fashae, et al. (2016) reported improvements in hygiene practices among food vendors following health education interventions. Other studies, such as those by Adepoju et al. (2021) and Ogunleye and Afolabi (2019), have highlighted significant improvements in artisans' knowledge and behaviors related to hygiene as a result of health education. This study aims to investigate the impact of health education on the hygiene behaviors of artisans in Warri South. By implementing structured educational interventions, the research seeks to evaluate changes in knowledge, attitudes, and practices related to hygiene. The goal is to provide evidence-based insights that can inform public health strategies and policies, ultimately leading to improved health standards among artisans and their communities.

### **Statement of the Problem**

Artisans in Warri South Local Government Area of Delta State, Nigeria, often face significant health risks due to inadequate hygiene practices in their work environments. Despite their crucial role in the local economy, these workers typically have limited access to health education and resources that could mitigate these risks. Poor hygiene practices not only affect their health and productivity but also pose a broader public health threat to the community. There is a pressing need to evaluate the effectiveness of health education interventions in improving hygiene behaviors among artisans to inform public health strategies and policy decisions aimed at reducing disease prevalence and enhancing overall well-being in this population. It was against the above backdrop that the researcher was motivated for the study and thus ask what specific impact health education have has on artisan hygienic behaviour in Warri South Local Government Area of Delta State?

### **Research Objectives**

The following objectives were raised to guide the study

1. To assess the current level of hygiene awareness and hygiene practices among artisans in Warri South Local Government Area.
2. To determine the extent to which health education influences the hygiene practices of artisans in Warri South Local Government Area.
3. To examine the impact of health education on the hygiene knowledge of artisans in Warri South Local Government Area of Delta State.
4. To determine the extent to which health education influences the attitude of artisans towards hygienic practices in Warri South Local Government Area.

### **Research Questions**

For the purpose of the study, the following research questions were raised.

1. What is the current level of hygiene awareness and practices among artisans in Warri South Local Government Area?
2. To what extent does health education influence the hygiene practices of artisans in Warri South Local Government Area?
3. What is the impact of health education on hygiene knowledge of artisan in Warri South Local Government Area of Delta State?

4. To what extent do health education influence the attitude of artisan towards hygienic practices in Warri South Local Government Area.

### Hypotheses

For the purpose of the study, the following research hypotheses were formulated for analysis.

$H_1$ : There is no significant difference in the level of hygiene awareness and practices of artisans in Warri South Local Government Area before and after health education interventions.

$H_2$ : Health education has no significant impact on the behaviour towards hygiene practices of artisans in Warri South Local Government Area.

### Methodology

The research methodology outlines the systematic approach used to investigate the impact of health education on artisan hygiene behaviour, knowledge, and practices. The study employs a descriptive survey and quasi-experimental designs., the descriptive survey design is suited for collecting data on the current status of artisans' hygiene practices and the impact of health education. This design allows for a comprehensive examination of relationships between variables and provides a detailed snapshot of the phenomena under investigation. The population for this study comprises 3,500 artisans in the Warri South Local Government Area (Delta State Ministry of Youth and Job Creation, 2024). This diverse group includes individuals from various trades, such as construction, food preparation, and textiles, providing a broad perspective on the impact of health education. The sample size for the study consisted of one hundred and fifty (150) respondents representing 4.3% of the study population randomly selected from five major areas/towns in Warri South Local Government Area of Delta State. The selected areas/towns were: Okere, Okumagba, Ubeji, Edjeba and Essi Layout in Wari South Local Government Area of Delta State. The sampling technique used for the study were purposive and simple random sampling techniques. Purposive sampling was first used to select specific artisan sectors relevant to the study, ensuring that the sample represents key groups within the population. Within each sector, simple random sampling was employed to select individual artisans, ensuring that every member of the selected sectors has an equal chance of being included in the study. A structured questionnaire was used as the primary instrument for data collection. The questionnaire features a 4-point modified Likert scale ranging from strongly agree to strongly disagree. This scale allows respondents to express their level of agreement with statements related to hygiene practices and health education. The validity of the instrument was established through expert review. Three research experts in the field of health education evaluate the questionnaire to ensure that it accurately measures the constructs of interest and is appropriate for the study's objectives. The reliability of the instrument was established at 0.83 coefficients using the test-retest method. The questionnaire is administered to a subset of the sample at two different times, and the results are correlated using Pearson Product-Moment Correlation Coefficient (PPMC). A high correlation coefficient indicates that the instrument is stable and reliable over time. Data were collected by the researcher and two trained research assistants. The assistants are trained to administer the questionnaire consistently and accurately, ensuring that the data collection process is standardized and reliable. Descriptive statistics, including percentage, mean, and standard deviation, were used to summarize and describe the data. Inferential statistics, specifically the z-test and chi-square test, are employed to analyze the relationships between variables and test hypotheses at a 0.05 significance level.

### Results

The data collected from the respondents were presented under the following tables below.

**Table 1: Demographic analysis of respondents**

Variables	Option	Frequency	Percentage
<b>Gender</b>	Male	65	43.33%
	Female	85	56.67%
<b>Educational Background</b>	Primary School	56	37.33%
	Secondary School	78	52.00%
	Tertiary institution	16	10.67%
<b>Type of artisan</b>	Tailor/Fashion Designer	21	14.00%
	Carpenter/ furniture maker	18	

<b>Years of experience</b>	Mechanic/auto mechanic	15	12.00%
	Hairdresser	46	10.00%
	Interior decorator	15	30.67%
	Computer operator/technological	15	10.00%
	Baking	20	10.00%
			13.33%
1-5yers		29	19.33%
6-10years		69	46.00%
10years above		52	34.67%

The data above show the demographic characteristics of the respondents in the study. From the data presented, a total of 150 respondents participated in the study. Out of the total 150, respondents, it was observed that the majority of the respondents are female (56.67%), while males represent 43.33%. This data above provides a comprehensive understanding of the artisans' demographics, showing a diverse range of educational backgrounds, trades, and varying levels of experience, with a slight predominance of female artisans.

**Research Question 1:** What is the current level of hygiene awareness and practices among artisans in Warri South Local Government Area?

**Table 2: Mean and Standard deviation analysis of the current level of hygiene awareness and practices among artisans in Warri South Local Government Area**

No	Statement	SA	A	D	SD	Mean	SD	Remark
1	I am aware of the importance of maintaining personal hygiene at my workplace.	43	48	43	16	2.95	0.96	Moderate level of awareness
2	I regularly wash my hands before and after work.	34	23	40	53	2.33	1.13	Low level of hygiene practice
3	I am knowledgeable about proper waste disposal methods.	23	41	53	33	2.46	0.96	Low level of knowledge
4	I use personal protective equipment (PPE) while working.	25	32	47	46	2.38	1.07	Low level of PPE usage
5	I ensure my work environment is clean and organized.	34	49	40	37	2.65	1.05	Moderate level of practice
<b>Grand mean</b>						<b>2.55</b>	<b>1.034</b>	<b>Moderate Level</b>

The table above revealed the analysis of the current level of hygienic knowledge and practices among artisan in Warri South Local Government Area of Delta State. With a mean of **2.65**, the respondents exhibit a moderate level of cleanliness in their work environment. While some artisans seem to prioritize keeping their work areas clean and organized, others may not consistently do so. The responses show that the current level of hygiene awareness and practices among artisans in Warri South Local Government Area is moderate to low. While artisans demonstrate a basic awareness of hygiene importance, their actual practices, such as hand washing, use of PPE, and knowledge of proper waste disposal, are lacking. These findings indicate a need for improved hygiene education and awareness programs for artisans in the area.

**Research Question 2:** To what extent does health education influence the hygiene practices of artisans in Warri South Local Government Area?

**Table 3: Mean and Standard deviation analysis of extent health education influence the hygiene practices of artisans in Warri South Local Government Area**

S/No	Statement	SA	A	D	SD	Mean	SD	Remark
1	Health education programs have taught me the importance of hand washing.	34	43	33	40	2.47	0.96	Moderate influence
2	I have improved my hygiene practices due to health education sessions.	51	43	23	33	2.75	1.02	Moderate influence
3	I am more consistent in using PPE because of health education.	34	53	36	27	2.63	0.98	Moderate influence
4	Health education has helped me understand the health risks associated with poor hygiene.	42	38	34	36	2.57	0.99	Moderate influence
5	I have adopted better waste management practices after attending health education.	34	53	31	32	2.59	0.97	Moderate influence

**Grand mean of 2.60**

The mean values for all the statements range between 2.47 and 2.75 on a scale where 4 represents Strongly Agree and 1 represents Strongly Disagree. This indicates that the influence of health education on the hygiene practices of artisans in Warri South Local Government Area is **moderate**. A grand mean of **2.60** suggests that, overall, the artisans have somewhat improved their hygiene practices due to health education, but the impact may not be strongly positive across all areas of hygiene. Based on the grand mean of **2.60**, health education moderately influences the hygiene practices of artisans in Warri South Local Government Area. The mean values indicate that health education has a **moderate influence** on the hygiene practices of artisans in Warri South Local Government Area. The standard deviation values, which range from **0.96 to 1.02**, suggest some variability in responses, but overall, the data is relatively consistent.

**Research Question 3:** What is the impact of health education on the hygiene knowledge of artisans in Warri South Local Government Area of Delta State?

**Table 4: Mean and Standard Deviation Analysis of impact of health education on the hygiene knowledge of artisans in Warri South Local Government Area of Delta State**

No	Statement	SA	A	D	SD	Mean	SD	Remark
1	Health education has increased my knowledge of personal hygiene.	53	34	52	11	2.86	<b>0.96</b>	Moderate influence
2	I have learned about the benefits of maintaining a clean work environment through health education.	47	46	39	18	2.81	<b>0.98</b>	Moderate influence
3	Health education has provided me with information on proper food safety practices.	54	42	32	22	2.85	<b>0.95</b>	Moderate influence
4	I am more aware of the diseases that can result from poor hygiene because of health education.	43	53	36	18	2.81	<b>0.97</b>	Moderate influence
5	Health education has taught me the importance of regular sanitation of tools and equipment.	54	62	32	2	3.12	<b>0.85</b>	Moderate to high influence

**Grand Mean = 2.89**

The table above revealed the artisan response on the impact of health education on the hygiene knowledge of artisans in Warri South Local Government Area of Delta State. **The grand mean of 2.89 indicates a moderate influence of health education on the hygiene knowledge of artisans.** This means that health education has positively influenced

their understanding of hygiene practices, but the influence is not overwhelmingly strong. The standard deviation values ranging from **0.85 to 0.98** suggest relatively consistent responses, indicating that the artisans' knowledge levels are fairly uniform across the group.

**Research Question 4:** To what extent does health education influence the attitude of artisans towards hygienic practices in Warri South Local Government Area?

**Table: 5: Mean and Standard Deviation distribution of the extent health education influence artisans' attitude towards hygiene practices**

No	Statement	VHE	HE	LE	VLE	Mean	SD	Remark
1	Health education has positively changed my attitude towards maintaining hygiene.	54	44	25	27	2.94	0.93	High Extent
2	I now prioritize cleanliness in my work because of health education.	23	41	56	30	2.38	0.91	Low Extent
3	I feel more responsible for maintaining hygiene after attending health education sessions.	40	46	34	30	2.74	0.97	High Extent
4	My view on the importance of using PPE has improved due to health education.	45	41	21	43	2.70	0.99	High Extent
5	Health education has motivated me to practice better hygiene.	32	45	32	41	2.48	0.95	Low extent

**Grand Mean =2.65; Extent = High**

The data presented in the table below shows the mean and standard deviation distribution of the extent health education influence artisans' attitude towards hygiene practices. Based on the data analysis, health education influences the attitude of artisans towards hygienic practices in Warri South Local Government Area to a high extent, with a grand mean of 2.65. This indicates that health education has a significant impact on improving the hygienic attitudes of artisans, though there is still room for enhancement.

#### Test of Hypotheses

For the purpose of the study, the following research hypotheses are formulated for analysis.

**H<sub>1</sub>:** There is no significant difference in the level of hygiene awareness and practices of artisans in Warri South Local Government Area before and after health education interventions.

**Table 7: Z-test analysis of the difference the hygienic awareness and practice among artisan before and after health education interventions**

Variables	n	Mean	SD	z-cal	z-crit.	Sig	Df	Remark
Pre-test	150	1.57	0.50	30.7	1.96	0.05	148	Significant difference
Post-test	150	3.53	0.60					

Since the calculated z-value (30.7) is significantly greater than the critical value ( $\pm 1.96$ ), the null hypothesis is rejected. There is a significant difference in the level of hygiene awareness and practices of artisans in Warri South Local Government Area before and after health education interventions.

The z-calculated value (30.7) far exceeds the z-crit value ( $\pm 1.96$ ), and the p-value is significantly less than 0.05. Thus, the null hypothesis is rejected. This means that there is a significant difference in the level of hygiene awareness and practices before and after the health education interventions among artisan in Warri South local Government Area of Delta State.

**H<sub>2</sub>:** Health education has no significant impact on the hygiene practices of artisans in Warri South Local Government Area.

Table 8: Chi-Square analysis of significant impact of health education on hygiene practices of artisans.

Item	Response	Total	2cal	2crit	Df	Sig.	Remark
	SA(Exp)	A(Exp)	D(Exp)	SD(Exp)			
1	34(97.5)	43(115.0)	33(82.5)	40(85.0)	150	123.07	<b>21.026.</b>
2	51(97.5)	43(115.0)	23(82.5)	33(85.0)	150		
3	34(97.5)	53(115.0)	36(82.5)	27(85.0)	150		
4	42(97.5)	38(115.0)	34(82.5)	36(85.0)	150		
5	34(97.5)	53(115.0)	31(82.5)	32(85.0)	150		
	195	230	157	168(85.0)	750		

The table 8 revealed the Chi-Square analysis of significant impact of health education on hygiene practices of artisans in Warri South Local Government Area. From the data analysis, it was observed that the calculated chi-square value is 123.07, while the critical value is 21.026 under degree of freedom 12 ta significance level of 0.05. Since the calculated chi-square value of 123.07 exceeds the critical value of 21.026, the null hypothesis, which states that health education has no significant impact on the hygiene practices of artisans, is rejected. This result implies that health education has a significant impact on the hygiene practices of artisans in Warri South Local Government Area, as evidenced by the statistical significance at the 0.05 level.

## Discussion

This study examined the impact of health education on artisan health behaviours towards hygiene in Warri South Local Government Area of Delta State. From the analysis of data in the study, the findings revealed that the current level of hygiene awareness and practices among artisans in Warri South Local Government Area is moderate to low. This finding aligns with the results of Fashae et al. (2016), who examined food artisans in Ibadan and found that while health education improved hygienic practices, there was still room for enhancement in consistent hygiene awareness. Similarly, Oladipo and Oni (2020) highlighted that artisans in Nigeria showed moderate levels of hygiene awareness, even after health education interventions, indicating that while artisans are aware of hygiene practices, their consistent application is still lacking. The study further showed that health education has a moderate influence on the hygiene practices of artisans in Warri South Local Government Area. This is in agreement with Adepoju et al. (2021), who found that health education significantly enhanced artisans' sanitation techniques and use of PPE. However, their study also suggested that this influence, while positive, was moderate and could be strengthened with continuous interventions. Similarly, Ogunbiyi et al. (2021) reported that although artisans' hygiene knowledge improved due to health education, challenges like financial constraints and limited access to programs affected the full extent of its impact.

Additionally, the study indicated that health education has a positive and high extent of influence on artisans' attitudes toward hygiene practices. This finding corroborates with the findings of Ogunleye and Afolabi (2019), who noted that health education significantly influenced artisans' attitudes, leading to the adoption of regular handwashing and the use of PPE. In contrast, however, Adepoju et al. (2021) found that while there was improvement in hygienic behaviors, the shift in attitude was moderate, suggesting that artisans still faced barriers to fully internalizing the behavioral changes encouraged by health education. The study also revealed that lack of access to programs, financial constraints, and time limitations are barriers to effective hygienic practices among artisans in Warri South Local Government Area. This finding is in line with Oladipo and Oni (2020), who identified similar barriers among Nigerian artisans, emphasizing that limited resources and awareness significantly hampered their ability to consistently practice good hygiene. The current study's findings similarly resonate with Ogunbiyi et al. (2021), who pointed out that while artisans improved their knowledge of hygiene, external barriers like financial limitations and insufficient program accessibility continued to hinder full participation in health education programs.

## Conclusion

Based on the findings of the study, it is concluded that while health education has a moderate to high impact on artisans' attitudes and practices towards hygiene in Warri South Local Government Area, there are still significant challenges such as financial constraints, limited program access, and time limitations. To enhance the effectiveness of health education, it is expected that targeted interventions be made more accessible and continuous, addressing the specific challenges artisans face. Thus, improving programme outreach and providing financial and resource support will likely strengthen artisans' commitment to maintaining proper hygiene, leading to better health outcomes and safer working environments.

## Recommendations

The findings of this study emphasize the need for a collaborative effort to improve hygiene practices among artisans in Warri South Local Government Area. Based on this, the following recommendations are made:

1. Government health agencies should develop and implement more accessible and targeted health education programs for artisans.
2. Artisan unions should collaborate with public health organizations to organize regular hygiene training and workshops.
3. Employers of artisans should provide financial and material support to enhance hygiene practices, such as personal protective equipment (PPE) and sanitation supplies.
4. Public health educators should design culturally relevant and practical hygiene education materials that resonate with the artisans' daily practices.
5. Non-governmental organizations (NGOs) should provide financial aid and resources to artisans facing economic barriers to adopting better hygiene practices.
6. Artisans themselves should take personal responsibility for maintaining cleanliness in their work environments by actively participating in available health education programs and applying the lessons learned.

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