

Knowledge, and Practice of Hand Washing Among Market Women in Eke-kwu, Owerri, Imo State Nigeria

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ABSTRACT

Hand washing is a fundamental practice for preventing the transmission of infectious diseases, yet its effectiveness is influenced by various factors. This study investigates the knowledge and practices of hand washing among market women in Eke-Ukwu, Owerri. Employing a cross-sectional descriptive design, the study surveyed 384 market women using a multi-stage sampling technique. The study made use of a closed ended questionnaire in collecting data. Results indicate a generally high awareness of hand washing as a preventive measure against disease, with 82% of Fresh Tomato Sellers, 90% of Vegetable Sellers, and 94% of Fish Sellers recognizing the importance of using soap and water. However, knowledge gaps persist regarding the recommended duration for effective hand washing, with significant uncertainty across all groups. The frequency of hand washing varied, with a notable portion of respondents failing to adhere to recommended practices consistently. Factors influencing hand washing practices include health concerns and the availability of facilities. The study highlights the need for targeted educational interventions to address gaps in knowledge and to improve access to hand washing resources. By linking hygiene practices to both health and economic benefits, this research aims to enhance hand washing behaviors among market women, thereby contributing to better public health outcomes in Eke-Ukwu, Owerri.

Background to the Study

Hand washing remains a foundational and highly effective measure in preventing the transmission of numerous infectious diseases, particularly those transmitted through the fecal-oral route, such as diarrhea and hepatitis A (World Health Organization, WHO [1]. Research by Curtis and Cairncross (2003) underscores the significance of hand washing with soap, attributing it to a reduction of up to 47% in the risk of diarrhea and up to 23% in respiratory infections. However, despite the established efficacy, hand washing practices often fall short, especially in low- and middle-income countries where limitations in accessing water and soap persist alongside low hygiene awareness [2].

Market women, a significant group involved in the commerce of goods within markets, frequently handle raw food, money, and waste, thereby exposing themselves to diverse sources of contamination. Beyond this exposure, they also hold the potential to act as vectors for disease transmission, posing

risks to their customers, families, and larger communities. Consequently, evaluating the knowledge, attitudes, and practices of hand washing among market women becomes critical to comprehend their role in disease transmission and implement effective preventive measures [3]. Research emphasizes the importance of hand washing in preventing infectious diseases transmitted through the fecal-oral route, such as diarrhea and hepatitis A [4]. However, despite this understanding, there exists a substantial gap in empirical evidence specifically exploring the hand hygiene behaviors among market women in Eke-Ukwu, Owerri, Nigeria. Nigeria faces significant challenges related to diarrheal diseases and insufficient access to improved water and sanitation facilities, further amplifying the urgency to understand and address hand hygiene practices [5].

Methodology

The study adopted a cross-sectional descriptive design, focusing on collecting and analyzing data from a specific subset of individuals representative of a larger group (Nworgu, 2019).

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This approach was selected to gather information from samples representative of the whole group. The market women who sell perishables in Eke-Ukwu market, Owerri. Were randomly selected the selected groups include women who sell fresh tomatoes, vegetables, and fish. The questionnaire was designed based on the study objectives and was administered to the market women

Results

The study revealed that the majority of respondents fell within the age brackets of 36-40 years (27.7%) and 41 years and above (27.1%). Younger age groups were less represented. Regarding marital status, nearly half (48.5%) of the respondents were married, followed by widowed (18.9%) and single (17.5%). A small proportion were divorced (6.3%) or separated (8.7%).

Education-wise, the highest proportion (49.5%) had attained Senior Secondary School education, followed by Junior Secondary School (17.9%), Primary education (14.1%), and Tertiary education (13.1%). Only 5.3% had no formal education. Regarding their experience in selling at the market, 79.1% had been selling for 1-3 years, while only 7.2% had more than five years of experience. Christianity was the predominant religion (92.2%).

Knowledge of Handwashing Among Market Women

The data indicated that 86.9% correctly identified handwashing as the process of washing hands with soap and water to remove dirt and germs. However, 13.1% lacked this basic understanding. The primary reasons given for washing hands varied: 29.1% stated it was to prevent disease spread, 27.7% to remove dirt, and 20.9% for personal cleanliness.

In terms of handwashing frequency, 37.9% acknowledged the importance of washing hands after using the toilet, 26.2% before handling food, and 23.3% after touching perishables. However, only 12.6% recognized the need to wash hands in all these situations.

When asked about the recommended duration for handwashing, knowledge gaps were apparent. While 26.7% correctly identified 10 seconds, 51.9% admitted they did not know the correct duration. Furthermore, 56.8% acknowledged that poor handwashing could affect the commodities they sell, while 43.2% did not recognize this risk.

Handwashing Frequency and Practices

The study found that 39.3% of respondents always washed their hands, while 29.1% did so most of the time. However, 16.9% washed their hands sometimes, and 14.6% rarely practiced handwashing.

Regarding the type of soap used, 56.3% preferred bar soap, while 43.7% used liquid soap. This suggests accessibility and affordability play roles in determining soap choice.

Table 1: Sociodemographic Characteristics of Respondents Data

Variables	Items	Frequency (N = 206)	Percentage %
Age	< 20	7	3.4
	21-25	15	7.3
	26-30	36	17.5
	31-35	35	16.9
	36-40	57	27.7
	41 and above	56	27.1
Marital Status	Single	36	17.5
	Married	100	48.5
	Widowed	39	18.9
	Divorced	13	6.3
	Separated	18	8.7
Highest Level of Education	No formal education	11	5.3
	Primary	29	14.1
	Junior Sec. School	37	17.9
	Senior Sec. School	102	49.5
	Tertiary	27	13.1
Number of years selling at the market	1-3 years	163	79.1
	2-5 years	28	13.6
	5 years and above	15	7.2
Religion	Christianity	190	92.2
	Islamic	16	7.8
	Others	0	0

Table 2: Knowledge of Handwashing Among Market Women

Variables	Items	Frequency (N = 206)	Percentage %
Handwashing refers to washing your hands with soap and water to remove dirt and germs.	Yes	179	86.9
	No	27	13.1
What is the main reason for washing your hands	To remove dirt and stains	57	27.7
	To prevent the spread of diseases	60	29.1
	To feel clean and fresh	43	20.9
	Others	46	22.3

How often should you wash your hands	After using the toilet	78	37.9
	Before handling food	54	26.2
	After touching perishables	48	23.3
	All of the above	26	12.6
The recommended duration for washing hands	10 seconds	55	26.7
	20 seconds	32	15.5
	30 seconds	12	5.8
	I don't know	107	51.9
Bad handwash practices can affect the commodities you sell	Yes	117	56.8
	No	89	43.2

Table 3: Handwashing Practices among Market Women

Variables	Items	Frequency (N = 206)	Percentage %
Frequency of Handwashing	Always	81	39.3
	Most of the time	60	29.1
	Sometimes	35	16.9
	Rarely	30	14.6
Type of soap used for handwashing	Bar soap	117	56.8
	Liquid soap	82	39.8
	No soap	7	3.4
Use of warm water for hand washing?	Yes	32	15.5
	No	174	84.5
Part of hand you focus on when washing	Palms	62	30.1
	Back of hands	22	10.7
	Between fingers	40	19.4
	Under nails	61	29.6
	Not sure	21	10.2
Drying of hands after washing	Towel	104	50.5
	Air dry	54	26.2
	Not sure	48	23.3

Table 4: Factors Influencing Hand Washing Within Market Areas

Variables	Items	Frequency (N = 206)	Percentage %
Reasons for washing hand	Fear of getting sick	79	38.3
	Social norms	36	17.5
	Availability of hand washing facilities	64	31.1
	Others	27	13.1

Barriers to handwashing	Lack of access to water	82	40.2
	Lack of soap	81	39.3
	Lack of time	28	13.4
	Others	15	7.3

Table 5: Assessment of Hand Washing Facilities

Variables	Items	Frequency (N = 206)	Percentage %
Availability of hand washing facilities	Yes	5	2.4
	No	201	97.6
Cleanliness of hand washing facilities	Yes	9	4.4
	No	197	95.6
Availability of soap and water supplies	Yes	11	5.3
	No	195	94.7

Discussion

The findings of this study provide valuable insights into the knowledge and practice of handwashing among market women in Eke-Ukwu, Owerri. Although the results demonstrate a relatively high level of awareness regarding the importance of handwashing, there are evident gaps in practice and the availability of hand hygiene facilities, which have implications for public health.

Knowledge of Handwashing

The study revealed that 86.9% of market women correctly identified handwashing as the process of using soap and water to remove dirt and germs. This high level of awareness aligns with findings from [6] who reported that 84% of respondents in a similar study conducted in Ibadan, Nigeria, recognized the importance of handwashing in disease prevention. However, the knowledge gaps observed in this study, particularly in understanding the recommended duration of handwashing (51.9% of respondents did not know), indicate a need for targeted educational interventions. A study by [7] highlighted that proper handwashing should last at least 20 seconds to effectively remove pathogens, yet only 15.5% of respondents in this study identified this duration correctly.

Handwashing Practices

Despite high awareness, handwashing practices were inconsistent. Only 39.3% of respondents reported always washing their hands, while 14.6% rarely did so. This finding is consistent with research by [4] who found that although knowledge about handwashing was widespread, only 42% of participants practiced it regularly in their daily routines. The inconsistency in handwashing habits among market women is concerning, given their frequent handling of raw food, money, and waste, which increases their risk of transmitting infectious diseases.

The preference for bar soap (56.8%) over liquid soap (39.8%) may be attributed to affordability and accessibility. Similar findings were reported in a study by [3] which noted that bar soap was the most commonly used handwashing agent in informal markets across sub-Saharan Africa. However, the use of warm water was particularly low (15.5%), further suggesting gaps in proper hand hygiene practices.

Factors Influencing Handwashing

The study identified key factors influencing handwashing, including fear of illness (38.3%) and the availability of handwashing facilities (31.1%). These findings correspond with those of [8] who found that health concerns were a primary motivator for handwashing behavior. However, social norms (17.5%) played a smaller role, suggesting that cultural factors may not strongly encourage consistent hand hygiene practices among market women in Eke-Ukwu, Owerri.

Barriers to Handwashing

The most significant barriers reported were lack of access to water (40.2%) and lack of soap (39.3%). These challenges are similar to those found in a study by Oloruntoba and [5] which identified inadequate water supply as a major obstacle to hand hygiene in Nigerian marketplaces. The limited availability of handwashing facilities in this study (only 2.4% of respondents reported access to such facilities) further exacerbates these challenges. Research by Bartram and [8] emphasizes that infrastructural limitations significantly impact handwashing compliance, particularly in low-resource settings.

Assessment of Handwashing Facilities

The study found that 97.6% of respondents lacked access to handwashing facilities, and 95.6% reported that existing facilities were unclean. This aligns with findings from [9] who noted that the absence of clean and functional handwashing stations is a major deterrent to effective hand hygiene. Furthermore, only 5.3% of market women had access to both soap and water, indicating that inadequate hygiene infrastructure is a pressing issue.

Public Health Implications and Recommendations

The inconsistency in handwashing practices, coupled with poor facility availability, poses a significant public health risk. Given that market women frequently handle food products, their inadequate hand hygiene could contribute to the spread of diarrheal and respiratory diseases. As emphasized by the World Health Organization [1] improving hand hygiene in high-contact environments such as markets can significantly reduce disease transmission.

Conclusion

While knowledge of handwashing among market women in Eke-Ukwu, Owerri, is relatively high, actual hand hygiene practices remain inconsistent due to infrastructural and behavioral barriers. Addressing these gaps through improved facility access, education, and policy interventions will be crucial in reducing the risk of infectious disease transmission within the market environment and the broader community.

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