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Personal hygiene and sanitation practices among woodwork artisans in Imo State, Nigeria

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Abstract

Background: Artisans in wood industries especially in developing countries, are faced with challenges of prevention, control of health issues, and promotion of total well-being due to poor personal hygiene and sanitation practices at work.

Objective: To assess the personal hygiene and sanitation practices among woodwork artisans in Imo State, Nigeria.

Methods: A descriptive cross-sectional study was carried out, to sample 216 participants consisting saw millers, wood carvers and carpenters. Multistage sampling technique was utilized for their selection, from 18 wood clusters in 9 L.G.As, proportionately drawn from the 27 L.G.As that make up the three senatorial zones of Imo State. A pre-tested semi-structured interviewer-administered questionnaire was employed to obtain data from respondents aged 20 years and above, who consented and met inclusion criteria from October 2022 to November 2023. Data obtained were captured with SPPS version 23, analyzed using descriptive statistics. Chi square test, t-test and logistic regression at 5% level of significance.

Results: Personal hygiene practices among respondents as presented in table 2, revealed that majority of them had separate accommodation (190; 88.0%). More than half of respondents (116; 53.%) do not brush their teeth daily, 51.4% bath sometimes, 40.3% bath every time, while 5.1% bath once in a while after work. As concern hand washing before eating, Majority of them (121; 56%) wash hands sometimes, 31.9% wash hands every time, 10.6% wash hands once in a while and 2.3% rarely wash their hands. More than half of the respondents (75.0%) wash hands with chemical substances after work, while 69.4% of them treat wounds with chemical substances.

Availability of sanitation facilities among the respondents (table 3), showed absence of hand washing (0; 0.0%) and 9.3% of urinal facilities (20). Borehole was the commonest source of water supply (75.9%), while flush pour toilet was the common toilet type (76.4%) used among studied respondents. The functionality of the toilet facility was found to be 44.5%. Majority of the respondents (158; 73.1%) indicated that the toilets were cleaned from time to time. Of those that affirmed cleaning of the toilet, 35.4% reported daily cleaning, 7.6% reported weekly cleaning, 5.!% had no response, while more than half of them (51.9%) had no knowledge of how frequent the toilet cleaning was done. Refuse collection practices among respondents (table 4), showed that major means of collecting refuse at respondents' shops was "any available container" (110; 50.9%). Trash bin bags were not found in the workshops of majority of the respondents (196; 90.7%). Substantial proportion of them collected their refuse fortnightly (30.6%), while incineration (46.3%) and open dumping (110; 50.9%) were the commonest methods of refuse disposal.

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Conclusion: Wood artisans in Imo State are vulnerable to poor health conditions which may impact their overall well-being, due to poor personal hygiene and sanitation practices at work. Sensitization through awareness creation and health education are needed for these workers.

Keywords: Personal Hygiene; Sanitation Practices; Woodwork Artisans; Imo State

1. Introduction

Hygiene and sanitation practices are fundamental strategies that aid prevention, control and promotion of workers' health and well-being. Body cleanliness through regular bathing, hair grooming, care of the teeth, feet, eyes, skin, ears, nose, hands, nails and maintenance of tidy work environment, through safe collection and disposal of all kinds of wastes minimize/prevent workers' vulnerability to health issues and promote their overall well-being. Good personal hygiene and safe sanitation practices at work promote good health, but dirty work environment, poor personal hygiene and unsafe sanitation practices lead to health issues with its consequences to the affected worker, his family, enterprise and the greater society [6, 14].

Artisans in wood industries form a substantial proportion of the nation's labour force, but greater proportion of these workers site their shops in unorganized and poor environmental settings, with unsafe sanitary conditions. These risk factors are often higher in small-scale and middle-scale industries owned by artisans whose activities falls outside the purview of governmental regulations [1], thereby exposing them to health issues.

World Health Organization (WHO) [13], reported that about 10% of global disease burden and one third of all annual death in low- and middle - income countries, result from inadequate water, sanitation and hygiene [14]. Presently, about 700 million people lack adequate sanitation, which is the key to socio-economic well-being and sustainable development of any society. As reported, about 32% of the global population (about 2.4 billion people) have no access to improved sanitation. Of these, about 1 billion people defecate in the open [14]. In Nigeria, with a population of 186 million, access to improved sanitation declined from 38% of the population in 1990 to 29% in 2015. Within the same period, the proportion of open defeacators increased from 24% to 25%. Poor sanitation has been linked with loss of income and production time among workers, contributing to loss of about N455 billion annually or about 1.3% of its GPD, in addition to sanitation-related illnesses [12].

Artisans in wood industries, somehow contribute to these losses through poor housekeeping in their workplace environment, indiscriminate disposal of wastes and outright neglect of personal hygiene as reported in some studies [6]. Sustainable Development (SDG) Goal 6.2, calls for universal access to adequate and equitable sanitation and hygiene by 2030 [9, 12]. This is geared towards keeping workers, their environment and facilities clean for prevention of health issues among them. This study therefore aims to ascertain the personal hygiene and sanitation practices among woodwork artisans in Imo State, Nigeria. Findings of this study will not only provide insights on level of preparedness towards achievement of Sustainable Development (SDG) Goal 6.2 by 2030 among wood workers in Nigeria**,** but will as well as aid the development of effective intervention strategies for safe hygiene and sanitation practices among artisans in Nigeria.

2. Material and methods

A descriptive cross-sectional design was adopted for the study. Two hundred and sixteen (216) respondents consisting of saw millers, wood carvers and carpenters/furniture makers who consented and met inclusion criteria, participated in the study. Their selection was via multi-stage sampling technique, from eighteen (18) wood clusters in nine (9) local government areas comprising 30% of the total local government areas, proportionately drawn from the three senatorial zones of Imo State. A set of detailed validated questions which formed the semi- structured questionnaire were administered through face-to-face direct contact to the respondents aged 20 years and above, who had lived not less than two years in Imo State, and had been actively involved in artisanal activities. This was done in both rural and urban community wood clusters randomly selected in Imo State for data collection, with all ethical requirements obtained. Assessment of their personal hygiene and sanitation were defined on the basis of critical markers such as prevalence of hazard exposures, awareness of occupational hazards, personal hygiene and sanitation practices. The study lasted from October 2022 to November 2023. In the administration of questionnaire, the rate of incomplete and "wrong" responses due to poorly understood questions were drastically reduced as clarification sought were given in the process. The informed consent of the respondents was obtained before actual administration of the questionnaire. The literate respondents were allowed to fill the questionnaire by themselves while non-literates respondents had the questions in their local language and their responses accurately filled by the researcher or the research assistants. Each question

took about 3-5 minutes to be completed. Data obtained was captured with SPPS version 23 and presented in tables using descriptive statistics for preliminary data analysis while chi square test, t - test and logistic regression at P<0.05, were other analytical methods utilized.

3. Results

Table 1 Socio-Demographic Characteristics of Respondents

Age	**Frequency (N)**	**Percentage (%)**
20 – 29	33	16.3
30 – 39	64	29.6
40 – 49	48	22.2
50 – 59	63	29.2
60 +	8	3.7
Total	216	100.0
Gender		
Male	200	92.6
Female	16	7.4
Total	216	100.0
Marital Status		
Married	156	72.2
Single	48	22.2
Others	12	5.6
Total	216	100.0
Education Level		
Primary	51	23.6
Secondary	123	56.9
Tertiary	14	6.5
Non-formal	28	13.0
Total	216	
Daily Income (#)		100.0
< 2,000	13	6.0
2,000 - 3,000	44	20.4
4,000 - 5,000	79	36.6
Above 5,000	80	37.0
Total	216	100.0

Table 2 Personal Hygiene Practices/Habits Among Respondents

Personal Hygiene Practices/Habits	**Wood Artisans (n=216)**	
	Freq	**%**
Do you have separate accommodation apart from the workshop?		
Yes	190	88.0
No	26	12.0
Total	216	100.0
Do you brush your teeth daily?		
Yes	100	46.3
No	116	53.7
Total	216	100.0
How often do you bath after work?		
Every time	87	40.3
Sometimes	111	51.4
Once in a while	11	5.1
Rarely	7	3.2
Never	0	0.0
Total	216	100.0
How often do you wash hands before eating at work?		
Every time	69	31.9
Sometimes	119	55.1
Once in a while	23	10.6
Rarely	5	2.3
Never	0	0.0
Total	216	100.0
Do you wash hands with chemical substances at work?		
Yes	162	75.0
No	54	25.0
Total	216	100.0
Do you treat wound with chemical substances at work?		
Yes	150	69.4
No	66	30.6
Total	216	100.0

Table 3 Availability of Sanitation Facilities among Respondents

Availability of Sanitation Facilities	**Wood Artisans (n=216)**	
	Freq	**%**
Do you have hand washing facility in your workplace?		
Yes	0	0.0
No	216	100.0
Do you have urinal facility in your workplace?		
Yes	20	9.3
No	196	90.7
Total	216	100.0
Do you have water supply in your workplace?		
Yes	216	100.0
No	0	0.0
Total	216	100.0
What is the source of your water supply in your workplace?		
Tap water	0	0.0
Tanks	52	24.1
Borehole	164	75.9
Total	216	100.0
Do you have access to toilet facility in your work place?		
Yes	89	41.2
No	127	58.8
Total	216	100.0
What type of toilet is available in your work place?		
Water closet	21	23.6
Flush pour	195	76.4
Bucket toilet	0	0.0
Total	216	100.0
Is the toilet in your work place functional?		
Yes	94	44.5
No	122	56.5
Total	216	100.0
Is the toilet cleaned from time to time?		
Yes	158	73.1
No	58	26.9
Total	216	100.0
How frequent is the toilet cleaned?		

Once daily	56	35.4
Weekly	12	7.6
Don't know	82	51.9
None	8	5.1
Total	158	100.0

Table 4 Refuse Collection and Disposal Practices Among Respondents

Refuse Collection and Disposal Practices Practices	**Wood Artisans (n=216)**	
	Freq	**%**
How do you collect refuse in your workplace?		
Any Container	110	50.9
Without container	64	29.6
Wheel barrows	8	3.7
Bin bags	34	15.7
Total	216	100.0
Are trash bin s available in your workplace?		
Yes	20	9.3
No	196	90.7
	216	100.0
How often do you remove refuse generated in your workplace?		
Daily	60	27.8
Weekly	60	27.8
Forth nightly	66	30.6
Every three weeks	0	0.0
Monthly	30	13.9
Total	216	100.0
How do you dispose refuse in your workplace?		
Open dumping	98	45.4
Incineration (burning)	100	46.3
Dumping in the river	8	3.7
Dumping anywhere	10	4.6
Total	216	100.0

4. Discussion

Craftsmen, workmen and tradesmen in wood industries constitute the substantial proportion of the nation's labour force, but they are faced with challenges of poor personal hygiene and sanitation practices.

Socio-demographically, majority of the respondent wood workers were aged between 30 and 39 years (29.6%). This agreed with similar studies by Oranusi et al. [11] in Ifo, Kwara State & Nwafor (2019) in Port Harcourt Metropolis

Nigeria. Sex distribution showed that wood occupation is male dominated (99.5%), supporting similar studies by Agbana et al. [2] in Kwara State, Agu et al. [3] in Abakaliki, Ebonyi State & Ezinne et al. [8] in Ojo local government, Lagos State, Nigeria. Greater number of wood workers had attained secondary school (56.9%), which corroborated the study of Elenwo et al. [7]. Majority of them earned between #4,000 & above #5,000 daily (37.0%), showing that their activities were in high demand in Imo State.

Majority of these artisans had worked at least 8 years and above (35.6 %), lending credence to the saying that perfection comes with years of practice. Since most of them learn by experience as the study revealed, hence high duration at work among these artisans. Greater proportion of them work between 8 - 10 hours daily (98.8%), which corroborated similar studies by Balogun [5] in Ibadan & Agu et al. [3] in Abakaliki. Activities of wood artisans fall outside the purview of government regulation, no wonder they work as they like especially for long hours.

Personal hygiene, refuse collection/disposal and sanitation practices were found to be poor among the wood respondents. The findings lend credence to studies of Agwah et al. [4] in Imo State, Ojo et al. [10] in Ile–Ife, Nigeria & Diwe et al. [6] in South Eastern State in Nigeria, which revealed poor hygiene and sanitation practices observed among the respondents to be below the standard set for adequate health protection.

5. Conclusion

Wood occupation is a gainful job, and has contributed immensely to socioeconomic development of many developed and developing countries of the world, including Nigeria. However, artisans in wood industries are faced with challenges of poor personal hygiene and unsafe sanitation practices. Increased sensitization and health education are therefore needed for these economically viable workers in Imo State.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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