Original Research Article

Evaluation of the Perception and Control measures towards Environmental Risk in Obio Akpor LGA of Rivers State .

ABSTRACT

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Aims: To evaluate the Perception and control measures towards Environmental Risk in Obio Akpor LGA of Rivers State.
Study design: Descriptive design
Place and Duration of Study: The study was carried out at the Rivers State Waste Management Agency in Obio-Akpor Local government area of Rivers State between January 2019-March 2019
Methodology:. The survey method was employed whilst 265 copies of questionnaire were used to elicit information from the number of employee..
Results: The findings showed that that majority of the respondents under survey had a good knowledge of health risk knowledge and are fully aware of the environmental health risk associated with waste dumping, On Possible control measures it was revealed that majority had the opinion that provision of safety and health structure is the best control measures so as to eliminate health hazard among solid waste workers
Conclusion: RIWAMA should provide sanitary facilities where workers can wash after work to ensure that effective personal hygiene is maintained and also provide the with Personal protective equipment

Keywords: Perception and Environment

1. INTRODUCTION

Solid wastes are generated due to man's activities in search for food or as waste itself after consumption of the food, as these wastes are thrown away in the environment. As population increased on the surface of the earth, as well as civilization onset, the quality and quantity of waste production also changed and increased. The advent of industrialization has altered the nature and quantity of waste generated on a higher level [1].

Residents in the urban centres caused an unprecedented increase in the amount of waste generated without a consequent means of disposing them effectively [2], particularly in developing countries where there is a high risks to the health of the people and workers due to in adequacies of a good waste management disposal system,

Occupational injuries contribute significantly to human and economic costs in developing countries as well as developed countries [3]. They continue to be a serious problem affecting workers at different workplace and industries.

At a globe scale, the international labour Organisation (ILO) estimates that 250million work related injuries and illnesses occur every year and 330,000 of these accidents are fatal. In addition annually, an estimated 160 million people worldwide have work related diseases including respiratory and cardiovascular diseases, hearing loss, musculosketal and reproductive disorder as well as mental and neurological illnesses [4]

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Although the statistics of occupational injuries are poorly documented in both developed and developing countries, sub-saharan Africa countries appear to have the greatest rate of occupational injuries [5]. Amongst the occupations contributing to these problem is solid waste handling.

Empirical studies on the evaluation of the perception and control measures towards Environmental health risk in Obio Akpor local government area of Rivers state is yet to be documented.

Studies already attempted were most often times streamlined to the health impact on resident neglecting the health workers itself. It is against this background that the aim of this research was to evaluate the perception and control measures towards Environmental Health Risk in Obio Akpor LGA of Rivers State . The specific objectives of the study were to: Evaluate the waste workers perception and opinion on health risk associated with solid waste disposal and to identify the possible control measures that can be implemented to eliminate health hazard among solid waste workers

2. METHODOLOGY

The population of the study will consist of the staff of Rivers state waste management agency (RIWAMA). For the purpose of the study the sampling technique adopted was the simple random sampling technique. This technique helped in giving a number to each subject or individual from the open populace putting the numbers in a compartment and picking them randomly. It gives every unit of the population an equal and known chance of

being chosen in the sample and it has to do with a definite number of population. Furthermore sampled respondents were given structured questionnaires.

The questionnaires were self-administered randomly to selected sample respondents of RIWAMA. The data retrieved from the questionnaire was put together using the statistical package for social sciences (SPSS). For the purpose of a clear and detailed representation of data, the uses of tables were employed in order to present the gathered data for the research study. Descriptive analysis was used which consists of the Mean, Median mode of analyzing

3. RESULTS AND DISCUSSION

3.1 Perception on the environmental health risk associated with waste dumping

To examine the perception of the environmental health risk associated with waste dumping two categories of questions were asked knowledge of the health risk and response on awareness of the health risk

Health Risk Knowledge

Table 1: Health Risk Knowledge

Items	Freq.	%
Good Knowledge	145	55
Fair Knowledge	65	25
Poor Knowledge	49	18
No Knowledge	6	2

Source: [6]

Data analysis as seen in Table 4.9 reveals that majority 55% (145) respondents had good knowledge in health risk knowledge, 25% (65) had fair knowledge and 18% (49) had poor knowledge while 2% (6) had no knowledge about health risk

Response on Awareness

Table 2: Response on awareness

Item	Freq.	%
Yes	231	87
No	34	13
Total	265	100

Source: [6]

On response to awareness 87% (231) said that they are conscious of the awareness of the environmental health risk associated with waste dumping while 13% (34) indicated that they are not conscious of the environmental health risk associated with waste dumping.

3.2 Possible control measures that can be implemented to eliminate health hazard among solid waste workers

Table 3 Control Measures (n=265)

Items	Freq.	%
Control Measures *		
Training on safe handling of solid waste	164	62
Pre placement of periodical medical examination	78	29
Provision of PPE	198	75
Provision of safety and health structure	216	82

Source: [6]

Data Analysis revealed that majority 82% (216) respondents had the opinion that provision of safety and health structure can be a viable control measures that can be implemented to eliminate health hazard among solid waste workers, 75% (198) opted for the provision of PPE, 62% (164) respondents opted for training on safe handling of solid waste and 29%(78) respondents had the opinion that pre placement of periodical medical examination could be a possible control measure that can be implemented to eliminate health hazard among solid waste workers

4. CONCLUSION

On the perception it was revealed that majority of the respondents under survey had a good knowledge of health risk knowledge and are fully aware of the environmental health risk associated with waste dumping. This result contradicts the finding of [7] while on Possible control measures it was revealed that majority had the opinion that provision of safety and health structure is the best control measures so as to eliminate health hazard among solid waste workers. The results correlate with the findings of [8] who was able to examine the control measures of environmental health hazard

COMPETING INTERESTS

Authors have declared that no competing interest exist

ETHICAL APPROVAL

Approval for this study was obtained from the Department of geography and Environmental Management, University of Port Harcourt Choba. Also, verbal informed consent was obtained from each respondent. All the participants were informed that the study is voluntary and that they could opt out of the study at any time. Also participants were assured that confidentiality would be maintained during and after data collection and that information given will be used for research purposes only. And lastly articles and authors used were sighted accordingly in this research

REFERENCES

1. Hunt C. A review of the health hazards associated with the occupation of waste picking for children. Inter J Adolescent Med Health 2001;13(3):177–190.

2. Kuijer. P and Frings-Dresen. M (2004). World at work: refuse collectors. Occupational and Environmental Medicine 2004: 61: 282-286 BMJ Publish Group Limited. 31. Loeweson R, (1998). Occupational Health and Safety in Southern Africa : Trends and Policy Issues ILO/SAMAT Policy Paper No. 8.

3. Sarkar P (2003). Solid Waste Management in Delhi-A Social Vulnerability Study Third International Conference on Environment and Health. Chennai, India: Department of Geography, University of Madras and Faculty of Environmental Studies, York University.

4. International Labour Organisation (ILO). Encyclopaedia on Occupational Health and Safety Volume 3.

5. Olorunnishola OA, Taylor AK, Byrd L (2010). Occupational injuries and illnesses in solid waste industry: a call for action. Journal of Morgan State University School of Community Health and Policy.20 (2):211–23.

6. Cookey A.T.(2019) Field work in Obio Akpor local government area of Rivers State

7. Saungweme, M (2012) An Integrated Waste Management Approach as an Solid Waste Management Strategy for Mbare Township, Zimbabwe. http://wwwscribd.com