ASSESSMENT OF OCCUPATIONAL HEALTH PROBLEMS AND PERCEIVED EFFECTS AMONG PIGGERY FARM WORKERS IN ILARO ZONE, OGUN STATE

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Abstract

This study assessed occupational health problems confronting piggery farm workers in Ilaro Zone, Ogun State, Nigeria. Specifically, it described the socio-economic characteristics of workers, identified common occupational health problems experienced, examined the means through which these problems were encountered, and assessed their perceived effects on workers' well-being. Primary data were collected from 84 piggery farm workers using a structured interview schedule, and respondents were selected through simple random sampling. Data were analyzed using descriptive statistics, including frequency counts, percentages, mean and ranking. The findings showed that majority (63.3%) of the respondents were male, married (73.4%), and had secondary school education (40.0%). The major occupational health problems experienced were stress (mean = 2.52), noise exposure (mean = 2.51), back pain (mean = 2.29), headache and sneezing (mean = 2.27), and catarrh (mean = 2.23). Health problems were commonly encountered through body itching, inhalation of contaminated air, injuries, and exposure to unhygienic environments. These conditions reduced productivity and increased healthcare expenditure. The study concluded that occupational health problems are prevalent among piggery farm workers and negatively affect their well-being and productivity.

Keywords: *Assessment, Occupational health problems, piggery farm workers, effects*

Introduction

Agriculture remains a critical sector of the Nigerian economy, contributing about 20–28% of the country's Gross Domestic Product (GDP) and employing approximately 30–40% of the labour force. The sector plays a vital role in food security, income generation, employment creation, and rural development, making it a major source of livelihood for millions of Nigerians (Food and Agriculture Organization (FAO), 2026) and National Bureau of Statistics (NBS), (2024).

Agriculture development often leads to environmental changes that can have adverse health problems such as; water storage receptacles that create suitable conditions for the breeding of mosquitoes that may lead to increased incidence of malaria in the neighborhood. Agriculture has been considered as the oldest hustle and bustle of settled man after his time of hunting and foraging and on a worldwide basis and about 70% of all workers are engaged in agriculture. It is through mechanization, the use of chemicals, and modern production methods that a small percentage of the American population grows so much food for everyone else.

Pigs are omnivorous animals capable of consuming a wide variety of plant- and animal-based feed resources. Their physiological and anatomical similarities to humans have made them valuable models in biomedical and medical research. In modern pig production systems, particularly intensive indoor systems, waste collection and management are easier to control compared to extensive systems. However, the accumulation of manure and other organic wastes often generates unpleasant odours and harmful gases such as ammonia, which can pose environmental and health challenges to farm workers and nearby residents. Effective waste management therefore remains an important aspect of sustainable pig production. (Aagaard and Rovang, 2023).

However, this comes at a price, namely, significant hazards to the health and well-being of farmers, piggery farm workers and farm family members. Although not well appreciated pig farming is among the most hazardous of occupations. There are significant numbers of deaths each year, many related to equipment, especially tractors.

Zoonotic diseases are infectious diseases that can be naturally transmitted between animals and humans. These diseases constitute a major global public health concern because they can spread through direct contact with infected animals, contaminated environments, food products, or disease vectors, posing significant risks to human health and livestock production (World Health Organization [WHO], 2024). These "zoonotic diseases" can be transmitted to human from live animals, their carcasses or by products (Wool, bone, hides, blood), or the environment contaminate. Thus farmers, piggery workers, slaughterhouse workers, animal transporters, person who process animal products and veterinarians all constitute high risk groups for certain zoonoses. Many of the zoonotic infections are not considered to be major human health hazard today. Lack of physician awareness, inadequate diagnostic support and poorly functioning reporting systems undoubtedly minimize the reported rate of zoonotic diseases.

Pig production in parts of Nigeria, particularly in the Northern region, is often limited by socio-cultural and religious factors. The predominantly Muslim population in Northern Nigeria generally does not engage in pig farming due to religious prohibitions against pork consumption. In addition, negative perceptions about pigs—such as beliefs that they are unclean animals and potential sources of disease—also discourage their production in many communities. These social attitudes significantly influence the profitability and acceptance of piggery enterprises in the country (FAO, 2023). Health services in rural communities are often less developed and less accessible than those in urban areas due to shortages of health workers, weaker health systems, and limited access to essential health services (WHO, 2021). In many developing countries, including Nigeria, rural residents continue to face considerable challenges in accessing healthcare services due to inadequate health infrastructure, shortages of qualified health personnel, transportation difficulties, and unequal distribution of healthcare resources compared to urban areas (Liepins *et.al.,* 2024). There are an unlimited number of hazards and health problems that can be found in almost any work place. There are obvious unsafe working conditions such as slippery floor that is dangerous but which may not be obvious. These chemical hazards arising from liquids, solids, dusts e.t.c physical hazard such as noise, radiation and extreme temperatures, biological hazard such as viruses, infectious waste and infestations, psychological hazards resulting from stress and strain.

Recent studies on pig production systems indicate that rearing conditions significantly influence the nutritional quality of pork. Pigs raised under free-range or outdoor systems tend to produce meat with higher levels of polyunsaturated fatty acids (PUFAs), including omega-3 fatty acids, as well as improved vitamin E content compared to pigs reared in intensive indoor systems.

These differences are largely attributed to variations in diet composition, access to natural forage, and environmental exposure. Such findings suggest that production systems not only affect animal growth performance but also play an important role in determining the nutritional and functional quality of pork for human consumption, particularly in relation to cardiovascular health and antioxidant properties (Abdullah et al., 2023).

Objectives of the Study

The broad objective of this study was to assess occupational health problems and effects on piggry farm worker in Ogun State. The specific objectives are seen to:

i. describe the socio-economic characteristics of piggery farm workers in the study area.
ii. identity the common occupational health problems faced by piggery farm workers in the study area.
iii. ascertain the means through which piggery farm workers encounter occupational health problems in the study area.
iv. determine the perceived effects of occupational health problems on piggery farm workers in the study area.

Methodology

This study was carried out in Ogun State, Nigeria. The State is situated within the tropics and covers 16, 409, 26 square kilometers. Ogun State is bounded in the West by The Republic of Benin (Dahomey) in the South by Lagos State and the Atlantic Ocean, in the East by Ondo State and in the North by Oyo State. It lies within longitudes 21.2°E and 5°E, latitudes 6°N and 8°N. The former Ijebu province was merged up with the Abeokuta province to form what is now known as Ogun State by the Federal Military Head of States (Muritala Mohammed). The State is strategically located, bordered to the East by Ondo State, in the North by Oyo and Osun States, in the South by Lagos State and Atlantic Ocean in the West by Republic of Benin, which makes it an access route to the expansive market of the Economic Community of West African States. It is predominantly occupied by the Egbas, Ijebus, Yewas, Remos and Aworis who belong to the main Yoruba ethnic group. It also has sub-groups namely, Ketu, Ikale, Ilaje, Ohori, Anago and Egun. There are also significant numbers of Nigeria's from other parts of the country as well as foreign nationals. The predominant languages spoken are Yoruba and Egun with several dialects while English is the official language.

There are two season's a rainy season, starting around March and ending in November followed by the dry season. The primary occupation of the people is agriculture and 80% of the total land area is arable. The State has ever green forest vegetation and soil most suitable for the cultivation of cash and food crops like rice, cassava, oil palm, cocoa, rubber, kolanut, pineapple, vegetables cotton, cocoyam, citrus and banana. In the North, there is grazing savannah land that is suitable for animal's husbandry. Subsistence farming is practised in these communities and the farmers grow crops like cassava, maize, yam, melon, and vegetables, while animals like goat, sheep, chicken and pigs are reared in the area. Also livestock production range from small ruminants and fisheries. Ogun State Agricultural Development Programme (OGADEP) is the main government agency that is responsible for Agricultural Development in the state (Otun 2000). The populations of the study were the piggery farm workers in Ilaro Zone, Ogun State Nigeria. A multiple stage sampling procedure was used for selecting respondents for the study. The first stage involves random selection of two blocks, namely: Ado-Odo and Imeko blocks. The second stage involved purposive selection of two cells each from each block. Ilaro and Iwoye from Ado-Odo block while Ayetoro and Imeko were selected in Imeko block. Simple random sampling technique was used to select 21 respondents from each cells making it 84 respondents. Primary data for this study were collected through the use of a structured interview guide. Descriptive statistics was used to analyse data collected.

Results and Discussion

Socio-Economic characteristics of the respondents

Table 1 reveals that majority (63.37) of the respondents involved in pig farming were males while females constituted 36.7%, indicating male dominance in pig production. Majority of the respondents (87.4%) were within the economically active age range of 31–50 years, suggesting that pig farming is largely undertaken by individuals who are energetic, productive, and capable of managing farm operations effectively. Table 1 further shows that majority (73.4%) of the respondents were married, indicating the importance of family responsibilities in agricultural enterprises. In terms of religion, Christians constituted the majority (88.6%), while Muslims and traditionalists accounted for 1.3% and 10.1%, respectively.

The low participation of Muslims may be linked to religious restrictions regarding pig production and pork consumption. Regarding household size, most of the respondents (43.7%) had between 6 -10 household members, suggesting the availability of family labor for farm activities. Educationally, 40.0% had secondary education, 21.5% had tertiary education, while others possessed primary or non formal education. This indicates a moderate literacy level among respondents, which may enhance awareness of occupational health hazards and adoption of improved farming practices. Nearly half of the respondents (49.3%) had 6–10 years of experience in pig farming, with an average farming experience of 10 years. This suggests that most respondents

possessed adequate knowledge and practical experience regarding occupational health challenges in pig production. The major occupation of the respondents was piggery farmers (46.8%), followed by artisans (25.3%) and farm managers (15.2%). The predominant production system was extensive management (49.4%), while only a small proportion practiced semi-intensive systems. Furthermore, most respondents (70.8%) kept between 1 and 20 pigs, indicating that pig farming in the study area is largely a small-scale enterprise.

Table 1: Distribution of respondents according to Socio-economic Characteristics

Variables	Frequency	Percent
Sex		
Male	50	63.3
Female	29	36.7
Age (years)		
20 - 30	07	8.9
31 – 40	33	41.8
41 - 50	36	45.6
51 - 60	03	3.8
Marital Status		
Single	12	15.2
Married	58	73.4
Widowed	07	8.9
Divorced	01	1.3
Separated	01	1.3
Religion		
Christianity	70	88.6
Islam	01	1.3
Traditional	08	10.1
Household Size (persons)		
1 – 5	15	21.1
9.56		
6 – 10	13	43.7
11 – 15	15	21.1
16 – 20	06	8.5
More than 20	04	5.6
Educational level		
Non formal education	15	19.0
Primary	15	19.0
Secondary	32	40.5
Tertiary	17	21.5
Year of experience in piggery production		
1 – 5	16	20.2
10.30		
6 – 10	39	49.3
11 – 15	07	8.9
16 – 20	13	16.5
Above 20	04	5.1

Occupational		
Piggery farming	37	46.8
Farm supervisor	05	6.3
Veterinary doctor	02	2.5
Farm manager	12	15.3
Artisan	20	25.3
Farming	03	3.8

Source: Field Survey (2018)

Common Health Problem Experienced

Table 2, shows that piggery farm workers experienced several occupational health problems, with stress (mean = 2.51) ranking first and noise exposure (mean = 2.51) ranking second. Back pain (mean = 2.29), headache (mean = 2.27), sneezing (mean = 2.27), and catarrh (mean = 2.23) were also common among the respondents. General body pain, joint pain, and waist pain each recorded a mean of 2.19, suggesting frequent occurrence. Conversely, serious conditions such as asthma (mean = 1.11), menangle infection (mean = 1.16), hepatitis (mean = 1.27), and zoonotic diseases (mean = 1.29) were rarely reported. Overall, physical strain and environmental hazards constituted the major occupational health challenges faced by piggery workers.

Table 2: Distribution of respondents according to common health problems they experienced (n=84)

Variqbles	**Always**	**Occasionally**	**Never**	**Mean**	**Rank**
	F(%)	**F(%)**	**F(%)**		
Musculoskeletal	-	9(11.4)	70(88.6)	1.89	13TH
Headache	26(32.9)	48(60.8)	5(6.3)	2.27	4TH
Back pain	-	56(70.9)	23(29.1)	2.29	3RD
Pain in waist	24(30.4)	46(58.2)	9(11.4)	2.19	7TH
Thigh problem	8(10.1)	67(84.8)	8(10.1)	2.05	12TH
General body pain	23(29.1)	48(60.8)	8(10.1)	2.19	7TH
Heart problem	1(1.3)	36(45.6)	42(53.2)	1.48	19TH
Joint pains	24(30.4)	46(58.2)	9(11.4)	2.19	7TH
Respiratory problem	2(2.5)	38(48.1)	39(49.4)	1.53	17TH
Cough	22(27.8)	46(58.2)	11(13.9)	2.14	10TH
Sneezing	24(30.4)	52(65.8)	3(3.8)	2.27	4TH
Catarrh	19(24.1)	59(74.7)	1(1.3)	2.23	6TH
Asthma	3(3.8)	3(3.8)	73(92.4)		

1.11	28TH			
Dizziness		6(7.6)	56(70.9)	17(21.5)
1.86	14TH			
Dermatological		-	42(53.2)	37(46.8)
1.53	17TH			
problems				
Measles		-	28(35.4)	51(64.4)
1.35	21ST			
Rashes		1(1.3)	61(77.2)	17(21.5)
1.80	16TH			
Scabies		-	24(30.4)	55(69.6)
1.30	23RD			
Zoonotic		-	23(29.1)	56(70.9)
1.29	24TH			
Menangle		-	13(16.5)	66(83.5)
1.16	27TH			
Influenza		-	26(32.9)	53(67.1)
1.33	22ND			
Hepatitis		-	21(26.6)	58(73.4)
1.27	26TH			
Accidental needle		2(2.5)	25(31.6)	52(65.8)
1.37	20TH			
stick				
Cold		2(2.5)	19(24.1)	58(73.4)
1.29	24TH			
Typhoid		7(8.9)	54(8.4)	18(22.8)
1.86	14TH			
Malaria		14(17.7)	60(75.9)	5(6.3)
2.11	11ST			
Stress		-	41(51.9)	38(48.1)
2.51	1ST			
Noise		41(51.9)	37(46.8)	1(1.3)
2.51	2ND			

Means of transmition of pig disease

Table 3 below reveals the major ways piggery farm workers encounter occupational health problems. Body itching was the most frequently reported issue (69.6%), followed by injuries and inhalation of polluted air (64.6% each). Eye irritation and unhygienic environments were reported by 59.5% of respondents, while exposure through water accounted for 58.2%. Poor working conditions (44.6%) and chronic cough resulting from dust exposure (41.8%) were also common. These findings indicate that piggery workers face considerable physical, environmental, and respiratory health risks.

Table 3: Distribution of respondents according to means of encountering occupational health problems

Statement	Frequency	Percent (%)
Through injury	51	64.6
Eye irritation	47	59.5
Air (inhaling)	51	64.6
Poor working condition	35	44.6
Body itching	55	69.6
Water	46	58.2
Unhygienic environment	47	59.5
Chronic cough (due to dust)	33	41.8

Percieved effects of occupational health problems

Table 4 presents respondents' perceptions of the effects of occupational health problems on the productivity of piggery farm workers. Skin rashes caused by improper hygiene and poor environmental conditions ranked first (mean = 3.97), indicating that respondents strongly agreed it negatively affects workers' performance. Discomfort resulting from inhalation of dust ranked second (mean = 3.94), while body itching ranked third (mean = 3.90), both contributing to reduced productivity. Tiredness due to long-distance trekking to farms (mean = 3.86) and social neglect arising from occupational health problems (mean = 3.81) were also perceived as significant effects. Furthermore, respondents agreed that spending substantial amounts of money on drugs and treatment (mean = 3.70) adversely affects workers' productivity and well-being.

Table 4: Distribution of respondents according to perceived effect of occupational health problems on well-being

Variables	VS	S	U	NS	NVS	Mean	Rank
	%	%	%	%	%		
Body itching can result in piggery workers inefficient productivity	6.3	72.2	7.6	1.3	1.3	3.90	3RD
Skin rashes due to improper and unhygienic environment which can reduce piggery workers performance	24.1	41.8	21.5	-	1.3	3.97	1ST
Discomfort from inhalation of dust can lead to low productivity of respondents	17.7	54.4	12.7	2.5	1.3	3.94	2ND
Tiredness due to long distance trekking can lower respondents productivity	29.1	26.6	26.6	5.1	1.3	3.86	4TH
Neglected by people during OHP	21.5	38.0	22.8	5.1	1.3	3.81	5TH
Spending too much money on drugs / cure	17.7		36.7	26.6	6.3	1.3	3.70 6TH

Conclusion and Recommendations

Conclusion

The study revealed that pig farming in the study area is predominantly undertaken by married, middle-aged males with moderate levels of education and considerable farming experience. Most respondents operated on a small scale and practiced the extensive system of pig production. The findings further showed that piggery farm workers are exposed to various occupational health problems, with stress, noise, back pain, headaches, sneezing, and catarrh being the most common. These health challenges are mainly encountered through body itching, injuries, inhalation of polluted air, unhygienic environments, and poor working conditions. The occupational health problems were found to have adverse effects on workers' productivity, leading to discomfort, reduced performance, fatigue, social neglect, and increased expenditure on medical treatment.

Recommendations

Therefore, improving workplace hygiene, providing protective equipment, and promoting occupational health awareness are essential for enhancing the health, safety, and productivity of piggery farm workers.

References

Aagaard Schild, S.-L., & Rørvang, M. V. (2023). Pig olfaction: The potential impact and use of odors in commercial pig husbandry. Frontiers in Animal Science, 4, 1215206.

Abdullah, F. A. A., Trnková, M., & Dordevic, D. (2023). Physiochemical properties and oxidation status of pork from three rearing systems. Applied Sciences, 13(17), 9731. https://doi.org/10.3390/app13179731

FAO (2023). Food and Agriculture Organization, *Pig production and smallholder livestock systems in developing countries*. FAO Animal Production and Health Report.

FAO (2026). Food and Agriculture Organization, *Nigeria at a glance*. Food and Agriculture Organization of the United Nations. Retrieved from FAO Nigeria at a Glance

Liepins, T., Nixon, G., & Stokes, T. (2024). Rural–urban differences in health service utilization in upper-middle and high-income countries: A scoping review. International Journal for Equity in Health, 23, 188.

National Bureau of Statistics (NBS**).** (2024). *Nigeria labour force survey Q2 2024*. National Bureau of Statistics. Cited in FAO Nigeria at a Glance

WHO (2021) World Health Organization, *guideline on health workforce development, attraction, recruitment and retention in rural and remote areas*. World Health Organization. https://www.who.int/publications/i/item/9789240025318

WHO (2024) World Health Organization, *Zoonoses*. https://www.who.int/news-room/fact-sheets/detail/zoonoses