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Short Communication

Ethnoveterinary practice of poultry birds in Ilara-mokin, Ondo-state Nigeria

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ABSTRACT: Ethnoveterinary practices are important because they are easily available, inexpensive and effective, especially in rural areas where veterinary services are absent or irregular and expensive. The need to obtain information on ethnoveterinary practice in poultry in Ilara-mokin in Ondo State Nigeria formed the basis of the study. The study investigated the ethnoveterinary practice in poultry in Ilara-mokin, Ondo State Nigeria. Data used were collected from rural poultry farmers in the community using an open ended interview with the use of questionnaire and were analysed by means of simple average and percentages. The study revealed that female dominated 83.3% rural poultry production within age of 36-50 (50%) and no formal education (50%) and were mostly Christians (100%) and traders (55.56%). The ethnoveterinary practice in the study area include medicinal plants, palm oil, fire and so on. Seven medicinal plants belonging to seven families were discovered. The leaves, roots and fruit from the medicinal plants were used for treating poultry diseases. Ten diseases were discovered in poultry birds. Indigenous knowledge of the diseases in poultry birds were recorded. The economy of the state can be improved by increasing the health status of poultry birds.

Keywords: Ethnoveterinary practice**,** diseases, poultry, medicinal plants.

INTRODUCTION

Ethoveterinary practice is used to protect animal health and to treat illnesses that is associated with traditional beliefs and indigenous knowledge and practices. It is readily available and accessible in remote areas and less expensive than synthetic medicine. Ethnoveterinary practice is also the application of indigenous knowledge to treat animal diseases. It is also defined as an indigenous animal health care system that includes the traditional beliefs, knowledge, skills, methods and practices of a given society (McCorkle, 1986; Yineger *et al*., 2008).

Adeleye *et al*., (2021) reported the occurrence of fowl cholera, Newcastle and Coccidiosis in broiler chicken in Ogun State Nigeria. They also used bitter leaf, moringa leaf, Christmas melon and basil to treat poultry diseases. Adeniyi and Oguntunji (2011) showed that Newcastle was the most prominent disease affecting poultry in Ondo town. In Ekiti state, Kolawole *et al*. (2007) reported lack of institutional support for ethnoveterinary practice in their rural areas.

Poultry birds comprises of domestic fowl, tuckey, duck, guinea fowl and pigeon. Ethnoveterinary practice of domestic fowl had been practiced in some villages in less developed countries (Guèye, 1999). He also reported diminishing poultry birds like duck, guinea fowl and pigeon, domestic fowl and turkey in villages. Some birds like parrots were kept under intensive system (Kalmar *et al*., 2010). The diseases affecting the domestic bird include diarrhea, cold and lameness (Guèye, 1999).

The economic importance of poultry rearing in Ilara-mokin is that it provides meat, manure, source of income

and source of employment to the poultry farmers. The objective of the research is to investigate the type of ethnoveterinary practice used in poultry production in Ilara-mokin.

METHODOLOGY

Description of the study area

Ilara-Mokin is located in a central part of Ifedore Local Government Area of Ondo State, Nigeria. Ilara-Mokin is about 12 km from Ondo State capital, and has Ipogun, Ipinsa, Ikota, Ibule-Soro and Ero as neighbouring. It has a coordinate of 7°20′53″N and 5°06′52″E with estimate population of 45,000 as of 2019. Strategic places of the town (Ilara-mokin) were chosen for investigation, which includes community area, express area, roundabout, Elizade University area, police station area. It has a tropical savanna climate.

Ilara-mokin was chosen for the study because ethnoveterinary practice in poultry in the place had not been reported before to the best of our knowledge. The relevant of poultry and ethnoveterinary practice in the place is that it often the common practice in the area because it was seen as the first treatment that was easily available to poultry bird in the place. Poultry production is a common practice in the place.

Survey study

Eighteen questionnaires were administered to respondents through open ended interview. The study employed the use of questionnaire and they were given to the rural dwellers for response to it on poultry animals. They were randomly chosen in the town. The questionnaire comprises of socioeconomic characteristics of the people in the village, the medicinal plants used, their medicinal value, the diseases affecting the poultry bird and the indigenous knowledge of the poultry bird diseases in the village. Microsoft excel (version 10) was used to analyse the data collected through mean and percentages.

RESULTS

The socioeconomic characteristics of the respondent revealed that female dominated (83.33%) the rural poultry production within the age of 36-50 (50%) and no formal education (50%) and were mostly Christians (100%) and traders (55.56%) (Table 1). Seven medicinal plants were identified in the study belonging to seven families, containing different parts of the plants (root, leaves and fruits) (Table 2).

The different medicinal plants were used to treat different poultry diseases as indicated in Table 3). The most common diseases of the poultry bird in Ilara-mokin was watery diarrhea and there were other diseases of poultry depending on their indigenous knowledge (Table 3).

Table 1. Socioeconomic characteristics of the respondent in Ilara Mokin.

Socioeconomic characteristics	Frequency	Percentage
Age		
<20	-	-
21-35	2	11.11
36-50	9	50.00
51-65	6	33.33
>66	1	5.56
Sex		
Male	3	16.67
Female	15	83.33
Educational status		
No formal education	9	50
1-6 (Primary education)	2	11.11
7-12 (Secondary education)	4	22.22
13-18 (Tertiary education)	3	16.67
Religion		
Christianity	18	100
Islamic	-	-
Traditional healer	-	-
Occupation		
Trading	10	55.56
Sewing	3	16.67
Professional teaching	1	5.56
Farming	3	16.67
Driver	1	5.56
Total	18	100

DISCUSSION

The socioeconomic characteristics of the respondent revealed that female dominated the rural poultry production and had no formal education, this was in consistency with the study of Adeniyi and Oguntunji (2011) and Kolawole *et al*. (2007). This could be due to the fact that females were mostly available at home to take care of the poultry birds. The respondents were mostly Christians and traders.

Two of the medicinal plants used in this study to treat poultry diseases were *Vernonia amygdalina* and *Ocimum*

Table 2. Identification of medicinal plants used for poultry birds.

Botanical species	Family Name	Vernacular name	Part of the plant used
Vernonia amygdalina	Asteraceae	Ewuro	Leave
Zingiber officinale (Ginger)	Zingiberaceae	Ginger	Root
Allium sativum (Garlic)	Amaryllidaceae	Garlic	Root
Ocimum gratissimum (scent leave)	Lamiaceae	Efinrin nla	Leave
Elaeis guinessis	Arecaceae	Ope	Fruit
Ficus exasperata	Moraceae	Epin	Leave
Adenophus breviflovus	Cucurbitaceae	Taagiri	Leave

Table 3. Indigenous knowledge used for poultry birds.

Indigenous technical knowledge of diseases	Diagnosis (English)	Diagnosis (Yoruba)	Botanical used/ other methods	Part of the plant used
Microbial diseases				
Watery stool	Diarrhea	Igbe guru	*Ocimum gratissimum*)	Leave
Stool with blood	Bloody diarrhea (Coccidiosis)	Igbe pelu eje	*Ocimum gratissimum*	Leave
Worm	Worm	Aran	*Curcuma conga*	Leave
			Allium sativum	Root
Infection at the comb	Fowl pox	Kokoro lori	*Elaies guinesis*	Leave
Diseases at swollen leg	Bumble foot,scaly leg mites	Ese wiwu	-	-
Parasite on the body during laying egg	Lice (Theriolosis)	Ina/Erinyo	*Ficus exasperata*	Leave
Environmental diseases				
Feeling cold and folding up	Cold	Otutu	Fire	-
Leg broken	Lameness	Rolapa-rolese	-	-
Infected birds shed in exhaled air, respiratory discharges, feaces and cough	News castle	Lukuluku	*Adenophus breviflorus*	Leave
Closing eyes while standing	Narcolepsy	Paoju de lori iduro	-	-
Twisting head	Torticolis	Koli	-	-

grattissimum which were in consistency with the study of Adeleye *et al*. (2021). This could be attributed to the fact that they were easily accessible and available within the study area (Ilara-mokin).

Newcastle was one of diseases affecting the poultry birds in Ilara-Mokin which was also found for poultry bird in Ondo-town (Adeniyi and Oguntunji, 2011). Fowl pox was also found on the poultry bird was also discovered in this study (Giotis and Skinner, 2019).

But the most common disease that affects the poultry bird in Ilara-Mokin was watery diarrhea. This could be due to their free-range type of management which can make them to easily pick contaminated food within their environment. The lameness and diarrhea of the birds discovered in this study was related to the study of Maigandi and Usman (1998) and Nwude and Ibrahim (1980).

The ethnoveterinary practice within Ilara-Mokin include the use of medicinal plants, fire, palmoil and so on. This could be because they were cheap, easily accessible and available within community. The other botanicals found in this study to treat poultry diseases include Garlic, Itagiri, ginger which agree with the finding of Oladunmoye and Kehinde (2010).

Conclusion

The study demonstrates the different ethnoveterinary methods employed in Ilara-Mokin's poultry production. If these practices are applied correctly, they will have a significant economic impact on the state and the nation as a whole, increasing the output of poultry meat and providing money for the poultry farmers.

Recommendation

It is recommended that these ethnoveterinary practices be preserved and considered for new drug advancement and commercialisation to promote cheaper and environmentally friendly options for poultry health management

CONFLICT OF INTEREST

The authors declare that they have no competing interests.

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