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Socio-Economic and Assessment of Community Contributions About Factors Affecting the Control of Tsetse Fly and Human African Trypanosomiasis in Gombe, Gombe State, Nigeria

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Abstract*— *Background: *Human African Trypanosomiasis (HAT), cause sleeping sickness disease in humans and livestock in sub-Saharan Africa and trust on tsetse flies as their major insect vector. The Human African Trypanosomiasis (HAT) was nearly eradicated from Africa continent in the year 1960's subsequent the achievement of regulator agendas in a numeral of prevalent countries. Nigeria is one of the greatest and most populated country in Africa; though, simply inadequate report about the existence and multiplicity of HAT mingling in the country is available.* ***Methods:*** *Design and method of this research conducted by using a physical questionnaire, which administered to 86 respondents in the research area chance. The physical questionnaire strong-minded mainly on selected respondents awareness, approach and opinion on the livestock administration, existence of cattle trypanosomosis, disease transmission, periodically, control methods, sources and type of traditional technology in preventing cattle from tsetse fly attack.* ***Results:*** *Formerly publics are involved in ongoing and active programmes for controlling and regulating tsetse and Humman African Ttrypanosomiasis (HAT), the most important is their knowledge, approaches, performers and contributions are to be understood then experimental. 41-50 has highest percentage 34.9% among the ages of respondents. Here, 88.4% of male respondents are capable and considered in governing, controlling and handling the cattle in any situation or one way or the other, living at home or during migration and only 11.6%) were female which are considered in handling cattle at home sometimes. 89.5% had knowledge about tsetse, 81.4% are capable to described the similarities of tsetse and house flies, 66.3% of respondents knows the tsetse bite, (13.9%) don't know about tsetse. 46.5% of the respondents tsetse bite in human and it is also a dangerous to animal with show that, 69.8% of the respondents believed. Most of them knew the risk associated with tsetse bite in human. The frequently stated health dangers related with tsetse bite in humans were sleeping sickness, fever (23.3%), malaria (5.8%) and headache (3.5%).* ***Conclusions:*** *The tax of HAT in isolated rural publics is problematic to detain through routine investigation methods alone. Awareness on keeping tax of human African trypanosomiasis and public contributions about factors affecting the control of tsetse fly in community should be elevated.*

Keywords— *Socia-economic, Human, Africa, trypanosomiasis, disease, tsetse fly, community.*

I. INTRODUCTION

Human African Trypanosomiasis (HAT), ordinarily famous as sleeping sickness, is a kind zoonotic disease due to contagion with the parasites *Trypanosoma brucei gambiense* (*T.b. gambiense*) or with the parasite *Trypanosoma brucei rhodesiense* (*T.b. rhodesiense*) that are spread by creepy-crawly vectors of the *species Glossina* (tsetse flies). There are about two familiar steps in the experimental presentation of Human African Trypanosomiasis, and primary hemolymphatic step which is related with a feverish illness; and the late encephalitic step, which improves before parasites have attacked the cerebrospinal fluid (CSF) [5]. Contagion with *T.b.* normally shows as a serious sickness, with organisms attacking the Central Nervous System (CNS) a very rare months after early infection, *although T.b. gambiense* is naturally a gentler, long-lasting illness, with attack of the Central Nervous System months-years after early contagion Kennedy, P.G.E (2004). The Human African Trypanosomiasis (HAT) was nearly eradicated from Africa continent in the year 1960's subsequent the achievement of regulator agendas in a numeral of prevalent countries. The unpredictability of the post-colonial time though, so many programs discontinued and the following recurrence of the infection [4]. And [8]. The report of Global Burden of Disease 19962 was the initial effort to count the load of Human African Trypanosomiasis (HAT). The significant constraint of these approximations, was the failure to differentiate between *T.b. gambiense* and *T.b. rhodesiense* which, as comprehensive above, have opposing infection progresses. Newly, research conducted by [1] provided the principal approximations of incapacity weightings for the exact steps of *T.b. rhodesiense* infection advancement by exploring Human African Trypanosomiasis (HAT) cases in a transmission in part of Afican countries. In count to the load of infection and humanity resultant from Human African Trypanosomiasis (HAT), here is also a scarcity of report concerning the communal and economic load of *T. b. rhodesiense* with just a trickle of readings examining these problems African continent like Nigeria. This analysis consequently designed at studying the factors influencing Socio-Economic and assessment of community contributions about factors affecting the control of tsetse fly and of human African trypanosomiasis in Gombe LGA, believing that individual and community contributions about factors affecting the control of tsetse and HAT participation would progress and maintained control strength

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while decreasing control spending. The data achieved through this report is likely to help strategy makers and planners in scheming and applying effective or workable community based tsetse and HAT control programmes.

II. Materials and Methods

A. Study Area

Gombe Local Government Area in the Northern part of Gombe State, North-East region, Nigeria. It's the capital city of Gombe state and has an estimated population of 261,536, found on latitude 10°17'22.88" N and Longitude 11°10'2.24" E. The main economic activities of the residents include survival agriculture, precious gathering and livestock maintenance

B. Method and Design of the Research

Design and method of this research conducted by using a physical questionnaire, which administered to 86 respondents in the research area chance. The selected respondent which include, both genders categorized based on their ages respectively. The physical questionnaire strong-minded mainly on selected respondents awareness, approach and opinion on the livestock administration, existence of cattle trypanosomosis, disease transmission, periodically, control methods, sources and type of traditional technology in preventing cattle from tsetse fly attack. The questionnaires were administered by the researcher and veterinary officers. Before the commencement of the interview, the objectives of the research was fully explained to each contestant and permission of the candidate was achieved [6].

C. Analysis of Data

All data collected through the structural questionnaire were examined using bar graphs to describe continuous data [10].

III. Results and Discussion

A. Results

Figure 1 contains the range of ages 27-30 to 61-70 shows that, the total of 86 (males = 88.4%, females = 11.6%) individuals were interviewed. 88.4% of males indicate the highest percentage, followed by 11.6% of females with lowest level as indicated in figure. 41-50 has highest percentage, and all are on their well merited age to regulates the doings of cattle from contact of trypanosomosis. Only 1.2% is above 60yrs.

From the results in figure 2, (89.5%) of the respondents have high knowledge and awareness of tsetse fly in the study area, 81.4% described the tsetse is similar with house fly. Other descriptions about tsetse fly were reported as biting fly (66.3%). Only few respondents no idea about tsetse fly (13.9%).

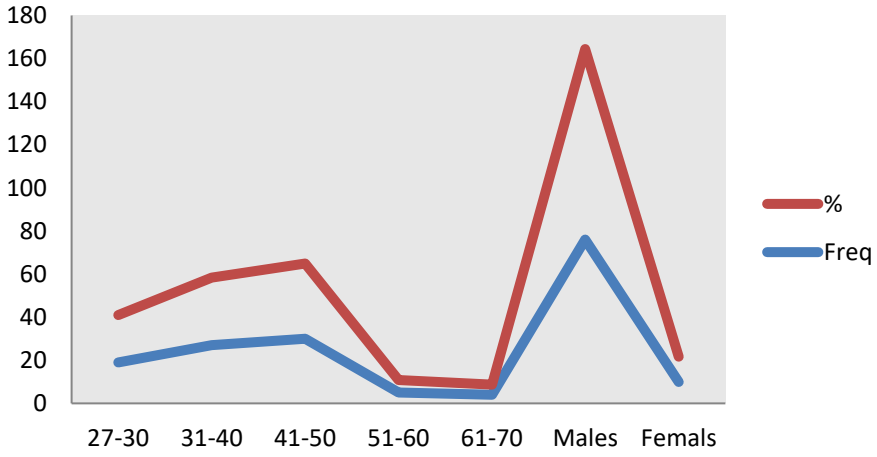

Fig. 1. Age of respondents

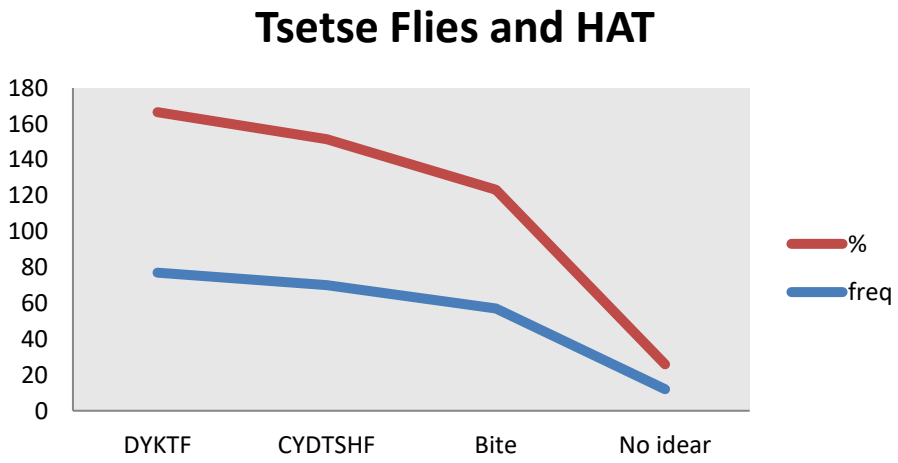

Fig. 2. Knowledge and perceptions of tsetse and HAT

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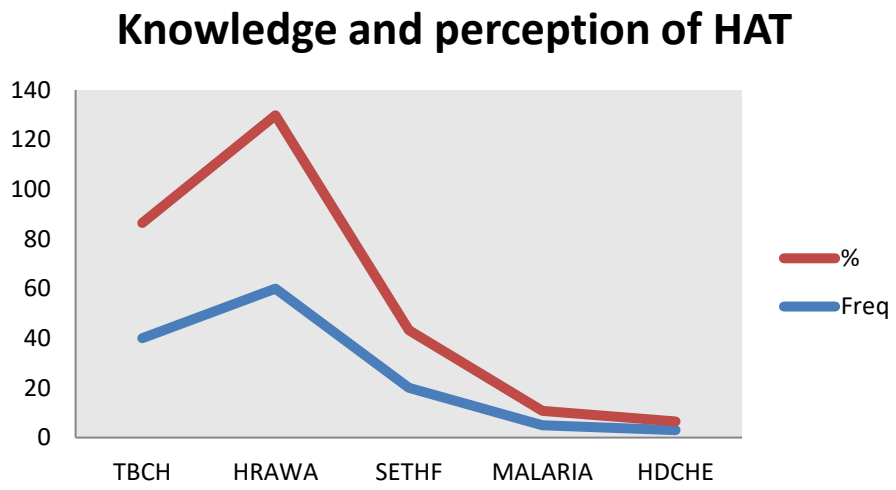

Fig. 3. Knowledge and perception of HAT

Figure 3 is the outcome showing knowledge of HAT, 46.5% of the respondents tsetse bite in human and it is also a dangerous to animal with show that, 69.8% of the respondents believed. Most of them knew the risk associated with tsetse bite in human. The frequently stated health dangers related with tsetse bite in humans were sleeping sickness, fever (23.3%), malaria (5.8%) and headache (3.5%).

B. Discussion

Formerly publics are involved in ongoing and active programmes for controlling and regulating tsetse and Humman African Ttrypanosomiasis (HAT), the most important is their knowledge, approaches, performers and contributions are to be understood then experimental. This even in states where the publics are adequately mindful and aware of trypanosomiasis and its penalties, and/or where fruitful tsetse and HAT mechanism processes have been approved, there may still be a require to expand public awareness about known control techniques to ease their participation in future tsetse and HAT control activities [7]. The total of 86 were interviewed with the following ages ranges from (27-30, 31-40, 41-50, 51-60 and to 61-70) respectively. 41-50 has highest percentage (34.9%). Here, male respondents are capable and considered in governing, controlling and handling the cattle in any situation or one way or the other, living at home or during migration. This is similar study determined by [7]. From the results in fig. 2, (89.9%) of the respondents have high knowledge and awareness of tsetse fly in the study area, 81.4% described the tsetse is similar with house fly. Other descriptions about tsetse fly were reported as biting fly (66.3%). Only few respondents no ideas about tsetse fly (13.93%). In this findings, figure 3, indicates that 46.5% of the respondents showed their knowledge of tsetse bite cause in human (TBCH), this is in agreement with the study of [3]. Some studies have reported that, majority of the respondents reported to have experienced tsetse bite which may present the risk of HAT transmission and nuisance [7]. In the present findings (figure 2), (46.5%) of the respondent aware of tsetse couse bite to human, (69.8%) aware of health risk associate with animals which can cause a large number of tsetse factors to cattle of farmers in the study area. Another research indicates average awareness of the respondents on the role play by tsetse on disease transmission among cattle is the risk and the most dangerous in Animal and human life [2]. From the results in figure 3 showed that tsetse had effect in human and the respondent agreed and assured of the symptoms which are; (23.3%) fever, (5.8%) malaria and (3.5%) headache, this similar with the study of [9]. Inside involved communities, interviews and involved group activities exposed an awareness that HAT generates a significant problem in terms of disease morbidity and mortality knowledgeable by the tolerant and communal and economic prices to patients and their relatives in the study area [9].

IV. Conclusion and Recommendations

After the results of this research, respondents have aware and great knowledge of Tsetse fly and the economic importance related to cattle production and rearing, control of tsetse and tax of HAT. The public contributions in controlling tsetse and HAT enabled communities to pronounce their lived capability of HAT and the tax that they felt the disease engaged on their lives. In view of the above, it was recommendations that: be elevated Awareness on keeping tax of human African trypanosomiasis and public contributions about factors affecting the control of tsetse fly in community should elevated.

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