



The level of awareness of Human African Trypanosomosis (HAT) in Taraba State, Nigeria

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Abstract

Human African trypanosomosis (HAT) is an endemic zoonosis in Nigeria. Awareness of the people of Taraba State on the disease is not known. A total of 900 structured questionnaires were administered to people in six randomly selected Local Government Areas (LGAs) of Taraba State to assess their awareness of HAT. An overall awareness of respondents to HAT was 86.9% (782/900). The awareness of the disease was significantly higher ($P < 0.05$) in Jalingo LGA 18.7% (146/782) than Bali 14.3% (112/782). The awareness of the disease in Wukari, Ibi, Gashaka, and Karim Lamido LGAs were 17.4% (136/782), 17.1% (134/782), 17.0% (133/782), and 15.5% (121/782) respectively. Based on educational qualifications, respondents with tertiary educational qualification recorded highest awareness 28.9% (200/692), and the least aware respondents were the non-educated 19.2% (133/692) which was statistically significant ($P < 0.05$). The awareness among individuals with primary and secondary qualifications were 24.1% (167/692) and 27.8% (192/692) respectively. About 60.8% (547/900) of the respondents were aware that HAT is transmitted through bites of tsetse flies. Respondents that got information about HAT in schools 43.2% (389/900) were significantly higher ($P < 0.05$) than those that were informed by medical personnel 17.3% (156/900). The study showed that more people in the State are aware of HAT than those who understand that tsetse flies are involved in the transmission cycle. The study also showed that urbanization and education influenced the awareness of HAT in the State.

Keywords: Assessment, Awareness, Human African trypanosomosis, Taraba State.

Introduction

Human African trypanosomosis or sleeping sickness is a vector-borne zoonosis caused by protozoan parasites of the genus *Trypanosoma* (Musere, 1990). The disease causes high mortality of up to 100% in untreated cases (Murray, 1994; Odiit *et al.*, 1997). The socio-economic impact of HAT ranks third after malaria and schistosomiasis in affected parts of sub-saharan Africa (Cattand *et al.*, 2001). The disease affects economically active adults with about 25% of cases occurring in the 20-29 age groups, and just over 60% in those aged from 10-39 years (Barrett, 1997; Swallow, 2000). The involvement of the central nervous system (CNS) in HAT is manifested by sleep disturbances making the economically active population inactive (Apted, 1970; Atouguia & Kennedy, 2000).

In Nigeria, the disease was first reported in Gboko, Benue State (Aiyedun & Amodu, 1974) and thirty two years later in Abraka, Delta State (Airauhi *et al.*, 2006, Osue *et al.*, 2008), indicating the existence of the risk to the human population in different parts of Nigeria. The awareness of HAT by the public in Taraba State is not available despite the availability of factor that can

influence its occurrence in the State such as the presence of the Gashaka-Gumti and Yankari game reserves in the State and the neighbouring Bauchi State respectively, as well as the relationship of the State with the endemic areas of Benue State (Aiyedun & Amodu, 1974) and the Fontem HAT areas of the Republic of Cameroon (Simo *et al.*, 2006). This study was undertaken to provide information on the awareness of the human population of Taraba State to HAT which will be useful in the designing and institution of awareness campaigns as well as prevention and control programmes against the disease in the State.

Materials and Methods

A total of 900 structured questionnaires were randomly administered among individuals in six randomly selected LGAs (to avoid bias) of the 16 LGAs of Taraba State to assess their awareness of HAT. After the questionnaires were filled by the respondents, they were collected and analyzed for the awareness of HAT and tsetse flies as vectors of HAT. Educational qualifications of respondents as well as sources of information in respect of the disease were also assessed. The category of

respondents that were classified as educated include those with any of the primary, secondary, and tertiary educational qualifications while the non-educated referred to those that do not attend school at all. Chi square test was used to test for association of the awareness between respondents from each LGAs and also based on educational qualification. Values of $P < 0.05$ were considered significant.

Results

The awareness of HAT was significantly higher ($P < 0.05$) in Jalingo LGA 18.7% (146/782) than Bali 14.3% (112/782) as shown in figure 1. The level of awareness in Wukari, Bali, Gashaka, and Karim lamido were 17.4% (136/782), 17.1% (134/782), 17.0% (133/782), and 15.5% (121/782) respectively. Based on educational qualifications, the awareness of HAT was found to be

significantly higher ($P < 0.05$) among respondents with tertiary education 28.9% (200/692) than the non-educated 19.2% (133/692) as shown in figure 2. Table 1 shows the sources of information of respondents in respect of HAT in randomly selected six LGAs of Taraba State. Respondents that got information about the disease in schools 43.2% (389/900) were significantly higher ($P < 0.05$) than those informed by medical personnel 17.3% (156/900). Of the 60.8% (547/900) respondents that were aware that HAT is transmitted through bites of tsetse flies, 18.8% (103/547), 21.2% (116/547), 25.8% (141/547), and 34.2% (187/547) represented respondents with none, primary, secondary, and tertiary educational qualifications respectively (Table 2).

Table 1: Sources of information in respect of sleeping sickness in randomly selected six LGAs of Taraba State.

Source of information	Number of individuals informed	Percentage (%)
Audio-visual	355	39.5
Medical personnel	156	17.3
Schools	389	43.2
Total	900	100

Table 2: Awareness of respondents to tsetse flies serving as vectors of HAT.

Educational qualification	No. of questionnaires administered	No. of people aware of the disease	Percentage (%)
None	300	103	18.8
Primary	200	116	21.2
Secondary	200	141	25.8
Tertiary	200	187	34.2
Total	900	547	100.0

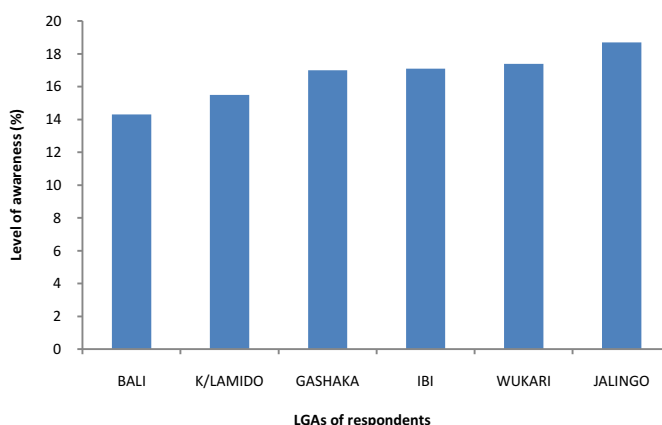


Figure 1: Awareness of HAT in six LGAs of Taraba State, Nigeria

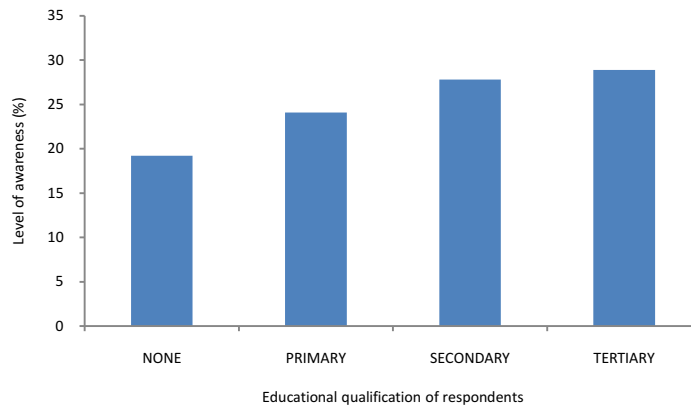


Figure: 2: Awareness of HAT based on educational qualification of respondents

Discussion

The observation of a significantly higher awareness among the respondents in Jalingo LGA (the capital of Taraba State) may be attributed to the availability of more and better schools as well as hospitals and medical personnel which may serve as sources of information in respect of HAT as is evident by the responses. The availability of audio-visual means (sound and visual means of communications such as Radio and Television) of information which are lacking to some extent in the less developed parts of the State may also explain the higher awareness in Jalingo (Figure 1). The observation of lower awareness in Bali and Karim lamido maybe attributed to the absence of good sources of information about the disease.

The observation of significantly higher awareness among respondents with tertiary educational qualification as compared to the non-educated maybe explained by the inability of the non-educated respondents to have assess

to good sources of information such as schools as is evident by their responses. Poor communication and listening skills (inability of the non-educated respondents to comprehend communications in the English Language) among the non-educated respondents may also be another factor for lower awareness (figure 2).

The availability of primary as well as post-primary schools and the absence of medical centers in some rural areas of the State may explain why schools and medical personnel represented highest and least sources of information in respect of HAT, respectively (Table 1). The overall awareness observed in this work is lower than the findings of Airauhi *et al.*, (2006) in Abraka, Delta State. This may probably be due to the availability of reports in the Abraka area that got people aware of the disease (Airauhi *et al.*, 2006; Osue *et al.*, 2008) when compared to Taraba State where less has been reported on this disease.

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