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Awareness of the Effects of Telecommunication Mast on Study Habits among Niger Delta University Students, Amassoma

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Abstract

Telecommunication mast play vital roles in data transmission and other internal process with high volume data transfer with guaranteed security and quality. However, their erection in the close vicinity of residential homes poses some dangers to the health and activities of the residents. This study investigated the influence of telecommunication mast on the study habits of students in Amassoma, Bayelsa State. The population of the study comprised all the 160 students living in Oweide-ama and Efeke-ama compounds where four communication mast are located. One hundred and fifty two (152) students selected through convenient random sampling formed the sample of the study. A self-structured questionnaire titled influence of Telecommunication mast on students study habit (ITMSSH) was used for data collection. The data collected was subjected through descriptive statistics of frequency and percentage. The result showed that students residing where telecommunication masts are erected experienced high environmental effects such as noise, vibration, from fumes that cause gas or smoke and other health-problems like headache, sleep dizziness, fatigue, depression and body vibration which impinge on their study habits. Recommendations were made that the NCC should follow global trend regarding safety standard and ensure that telecommunication mast operators should strictly adhere to this standard where masts are erected 10km away form residential homes and that students should stop renting apartments where these masts are erected amongst others.

Keywords: *Telecommunication mast, Study habits, Achievement.*

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Background to the Study

The advent of GSM (Global System Mobile) in Nigeria had ushered in indiscriminate erection of mast in nooks and crannies of our communities. According to Osaretin[1] it has become part of the environment to see telecommunication mast at different locations around the country.Antoneli[2] expressed his view regarding telecommunication mast that they are indisperisable for the case of high volume data transfer with guaranteed security and quality. This accounts for the preponderance of the mast in the areas requisite for human habitation.

There have been claims and counter claims concerning the effects of telecommunication mast on the on the health of people living near the vicinity of such mast. Abdel-Rassoul, El-Fateh, Salem, Michael, Farahat, El-Batanouny and Salem[3]posit that telecommunication mast waves cause short term memory, sleep disorder, increase in leukemia andspeed of cancerous growth amongst others. They stressed further that the noise, vibration and fumes generated from the standby power generators cause pollution to the environment, partial deafening headache, sleeplessness and risk of brain tumor. Similarly Onifade and Ikotun[4] identified various side effects of mast location and concluded that there is a significant relationship between mast location and health of the residents. In the United Kingdom, a mobile phone company was asked to remove its telecom mast from a blockof flats after seven clusters of cancer and other illnesses were discovered Satini, Satini, Leruz, Danze and Seigne[5].

In the same vein NESREA cautioned that erecting telecommunication mast around homes should be discontinued as it poses great threat to human health. This view is also shared by Osaretin[1] as he submits that thesemasts though helpful are believed to have these mast though helpful are believed to have negative health effects on people living near where they are erected.

Despite these revealed evidence, for instance Osa-Edoh and Alutu (2012)[6] in their study of students' study habits and academic achievement sound a high correlation between study habits and academic performance. The work of Fazal, Maoka and Masood 2012[7], and Nonis and Hadson 2010[8] yang 2011[9] also revealed similar bindings.

Despite these revealing assertions, the NigerianCommunications Commission (NCC) has consistently debunked claims that masts and tower are harmful and could cause series health problem laying hold to the position held by World Health Organization (WHO) that there is no scientific proof. This has led to the violation regulation of the distance between telecommunication mast and a residential building being 10km away. The present study is not out to provide scientific roofs on the health effect of telecommunication mast around homes but to assess students awareness of such effects if any on their study habits.

Amassoma community located in southern Ijaw Local Government Area of Bayelsa State is a fast growing community with the inception of the Niger Delta University in the Area. It is has witnessed the influx of large students population as the university could not housed all the students in their halls of residence, a situation where students rent apartments where masts are at close proximity.

See the figure below:

Telecommunication mast in a residential building at Efeke-Ama, Amassoma

Study habit of every student is one of the most important factors that affect his or her understanding regarding a certain subject, underscoring the correlation between students study habits and performance. It does implies that students with good study habits, other things being equal will outperform those with poor study habits. For instance Osa-Edoh and Alutu[6]in their study of student's study habit and academic achievement found a high correlation between study habit and academic performance. The work of (Fazal, Majoka and Masood[7]Students,[1]Nonis and Hudson[8]and Yang[9]) also reveal similar findings. Student's habits may be affected by outside interference like the environment, attitude towards peers and teachers, books and reading materials, even the place of study and other factors which influence the concentration of the students to effectively understand his/her lesson.

Study habit is the pattern of behaviour adopted by students in the pursuit of their studies that serves as the vehicle of learning. It is the degree to which the student engages in regular acts of study that are characterized by appropriate studying routines (e.g, review of material, frequency of studying sessions etc.). Occurring in an environment that is conducive to studying. A study by Nuthana and Yenagi[10] attributed students' failure to achieve good academic records as a result of poor study habit, anxiety, noisy environment low self concept and so on. The noisy environment can be caused by generators or machines attracting noise hazards to students who study in such homes. Telecommunication masts have been associated with noisy environments. According to Abdel-Rassoul et al[3],the perceived impact of telecommunication mast causes both psychological and physiological strains on students living close to these masts. A person who develops psychological effects will lack the ability to concentrate, and to speak in low tones, bear/shock, sleeping disorder etc. while someone who developed physiological effects will have loss of memory, fatigue, dizziness, eating disorder and others.

Objective of the Study

The objective of this study is therefore to find the awareness of students on the influence of telecommunication, masts on their study habits in the residential locations of these based

stations in Amassoma, Bayelsa State. In specific terms, the researchers intend to:

1. Assess the influence of telecommunication masts on students' study habits;
2. Find out students reading habits in their environment where telecommunication masts are erected.
3.

Research Questions: To guide the study, two research questions were raised as follows:

1. What influence has telecommunication masts on the study habits of students residing in Amassoma?
2. What is the reading/studying level of students living very close to telecommunication masts in Amassoma?

Materials And Methods

The descriptive design was adopted in this study to obtain relevant data. The population comprises all the one hundred and sixty (160) students residing at Oweidei-Asma and Efeke-Ama in Amassoma where four (4) telecommunication masts are located. All the 160 students formed the sample; however, eight respondents were dropped due to their irregularity in their stay in the said residents. This gives a sample size of One Hundred and Fifty Two (152) students.

A self structured questionnaire titled "influence of Telecommunication Masts on students' study habits (ITMSSH) was used for data collection. ITMSSH contained two sections, A and B. section A focused on demographic variables of respondents. While section B having ten (10) items from the sought to elicit information students in the influence of telecommunication masts on their study habits. It was structured on a fivelikert scale of strongly Agree (A), undecided (U), Disagree (D) and strongly disagree (SD). To ensure the validity of the instrument, ITMSSH was given to three (3) experts in measurement and evaluation for its content and face validity. Items were modified based on their input. A reliability index of 0.73 was obtained when the instrument was subjected to test-retest method on subjects outside the study sample sharing the same characteristics. PPMC was used for the analysis to arrive at the reliability index. The questionnaires were personally administered by the researchers. All the 152 questionnaires were successfully retrieved. The data collected was processed using the statistical package for social sciences (SPSS) and analyzed through descriptive statistical measures of means frequency tables and percentages.

Results

Table 1: Demographic Data of Respondents

VARIABLES	FREQUENCY	PERCENTAGE %
GENDER		
Male	83	54.6
Female	69	45.4
TOTAL	**152**	**100**
AGE		
15-20 years	26	17.1
20-25 years	73	48.1
25-30 years	37	24.3
30 -35years	11	7.2
35 and above year	05	3.3
TOTAL	**152**	**100**
LEVEL OF STUDY		
100	19	12.5
200	29	19.1
300	65	42.8
400	34	22.4
500	04	3.3
TOTAL	**52**	**100**

Table 2: Percentage Distribution of Students on the Influence of Telecommunication Masts on the Study Habits.

S/N	Description	A 1	SA 2	U 3	D 4	SD 5	TOTAL
1	I always feel tired to concentrate while studying under noisy environment as a result of telecom mast machines	69 45.4	39 25.7	10 6.6	30 19.7	4 2.6	100
2	I usually have headache while studying where the masts are located due to noise.	78 51.3	37 24.3	6 3.9	21 13.8	10 6.6	100
3	I always find myself studying outside from my home due to noise and vibration from telecom masts.	45 29.6	37 24.3	9 5.9	48 31.6	13 8.6	100
4	I feel dizzy, depressed, stressful and experienced bodily vibration when studying at home as a result of telecommunication mast noise.	65 42.8	32 21.1	12 7.9	35 23.0	8 5.3	100
5	I cannot concentrate very well on my study periods due to noise, distraction from telecom mast at my residence.	76 50.0	38 25.0	10 6.6	23 15.1	5 3.3	100

Table 3: Frequency Distribution of Respondents Residing Very Close To Telecom Mast on Their Level of Reading/Studying.

S/ N	STATEMENT	Response					
		SA	A	U	D	SD	TOTAL
1.	I can study at home even if there is noise or vibration from telecom masts.	22 21.7	22 14.5	8 5.3	22 145	67 44.1	**100**
2.	I feel distracted with fear while studying in such environs where there is noise pollution which easily attract armed robbers at night	59 38.8	24 15.8	20 13.2	38 25.0	11 7.2	**100**
3.	I cannot study for long Periods due to headache as a Result of noise from telecom Machines at my compound.	83 54.6	36 23.7	8 5.3	18 11.8	7 4.6	**100**
4.	I still study under dizziness And depression occasioned by noise and vibration due to telecom mast.	18 11.8	16 10.5	12 7.9	16 10.5	63 41.4	**100**
5.	Even though, there is a telecom mast in my compound, I still find it conducive to study For long period	45 29.6	30 19.7	6 3.3	33 21.7	38 25.0	**100**

Research question 1: what Influence has Telecommunication masts on the study habits of students residing in Amassoma?

Table 2 above revealed that 78 respondents respectively 51.3% attested to the statement that noise and vibration can influence student's concentration negatively.

However, 48 students representing 31% disagreed to the assertion that noise and vibration from the masts deter them from studying at home.

Research Question 2: What is the reading/studying level of students living very close to telecommunication masts in Amassoma?

Results from Table 3 showed that 83 (56%o respondents cannot study for extended hours due to noise and vibration from the masts. 18 (11%) were not distracted while 8 (5.3%) were undecided.

Discussion

The findings from research question 1 revealed negative influence of telecommunication masts on students study habits. This agrees with Osaretin[1] assertion that telecom. Masts though helpful have also negative health effects on people living in close vicinity. It is also in congruence with the finding of Onifade[4] et al, Abdel-Rassou[3] et al. The effects included short term memory, sleep disorder, headache arising from noise, vibration and fumes. These

findings however do not support the claims of the NCC that telecommunication masts do not pose any serious health problems on the residents. They might be blinded by the economic benefits accruing to the commission. Elsewhere is in the world, Egypt, Spain, Poland, and Austria.

It has been shown that no major studies have been reported in which health effects did not occur on actual populations living near mobile base stations. Perhaps, more intervention studies on a large scale have to be investigated in Nigeria. It has been shown by Nuthana and Yenagi[10] that habits can be also influenced by the state of health of the individual as well as the environment.

The findings from Table 3 revealed that 56% of the respondents agreed that they cannot study for long periods, 41% were depressed and dizzy and 38% distracted by fear. This gives an indication that student living in such areas cannot maximize their study potentials due to constraints posed by these telecommunication masts. The result from this study is in line with the findings of Roosli[11] et al where sleep disorders, headaches, stress, fatigue and concentration difficulties were most common complaints.

Educational Implications

Students who are living very close to base stations are often distracted while studying, where these machines generate noise and vibration within their vicinity. Student concentration is limited as a result of the noise and vibration leading to dizziness, stress, depression, sleeplessness, which interferes with their studies and thus their achievement level.

Conclusion

It is obvious from the findings of this study that telecommunication masts erected very close to residential buildings do trigger off both environmental and health problems which impinge on the study habits of students. These manifest in the form of headaches, lack of concentration, stress, sleeping disorder amongst others. It can also be concluded that a good number of the respondents are not fully aware of the implication of studying in such environments.

Recommendations

Based on the findings, we thus recommend the following:

1. Enlightenment/awareness campaign be made to the public regarding the effects of residing near a mast;
2. The national environmental standards and regulation enforcement agency (NESREA) should rise up to their responsibility of ensuring a safe environment for students and the populace.
3. Government as a matter of urgency should ensure that the various regulatory bodies carry out their junction of maintaining a safe environment.
4. The NCC should follow the global trend on recent findings about health implications of sitting base stations around residential neigbbourhood and ensures that international safety standard is strictly adhere to by telecom operators in Amassoma.
5. Students should avoid renting apartment in areas where telecommunication masts are erected.

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