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Resurgence of Air Borne Diseases in Public Universities: Students View of their Pervasive Effects

[1]Christian Nwakanma *
Ph. D
Faculty of Education and Arts
Department of Business Education
Madonna University Okija Campus, Anambra State
&
[2]Aniche Juliana. C.
Department of Sociology
Faculty of Social Sciences
Madonna University Nigeria, Okija Canpus, Anambra State.

Abstract

This paper investigated the resurgence of airborne diseases in public universities: Students View of their Pervasive effects. This study was carried out in Nnamdi Azikiwe University Awka, Anambra State. Two research questions and two hypotheses guided this study. The population of this study is 10,000 which comprised 4,500 males and 5,500 female students in Nnamdi Azikiwe University Awka, Anambra State. Sample size of this study is 170. Stratified random sampling technique was used to select 40 male students in two departments. On the other hand, 45 female students were selected in two departments, which gave a total sample size of 170 students selected as sample size in Nnamdi Azikiwe University Awka, Anambra State. Researcher developed questionnaire titled "resurgence of airborne diseases in public universities: Students View of their Pervasive effects" was used, with four rating scale of strongly agree, agree, disagree and strongly disagree. The instrument was validated by two specialists in Madonna University Okija campus, Anambra State. Cronbach alpha statistics was used to determine the reliability coefficient of this study at 0.78 and 0.97, which shows that the instrument is reliable for this study. Mean and standard deviation were used to analyze the data while t -test of independent was used to test the hypotheses. Findings from this study revealed varied effects of airborne diseases on students, such as cough vomiting, headache, stooling and weight loss among others. The findings of this study revealed types of airborne diseases that possessed devastations to students such as,: influenza whooping cough, cold, tuberculosis, mumps anthrax diphtheria, covid-19, aspergillos among others. It was recommended students should stay away from the affected students. Also, government should equip public universities hospitals in Nigeria with drugs. This will help to reduce the spread of airborne diseases among others.

Keywords: Airborne diseases in public universities a myth or reality, Losses Caused by Airborne Diseases in Public Universities, Types of Airborne diseases, Responsibilities of Public University's Managers on Airborne Diseases Mitigation, Symptoms of Airborne diseases to the affected, Discomforts Airborne diseases can Cause to the affected Students in lecture halls.

* Corresponding Author: Christian Nwakanma
Email: christiannwakanma6@gmail.com
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Introduction

Vice – Chancellors of public universities are people whom responsibilities of university management are bestowed upon. Public universities staff and students are not exempted from contacting diseases that are on spread during outbreak of diseases. Public universities heads effectiveness on university administration with special interest on staff and students' health and other motivational strategies, are good human resource personnel (Kess- momoh etal, 2024). Air borne diseases are microbial diseases spreading through air. They are very devastative diseases. They can spread to more than 200 people in different homes, schools churches, playgrounds and in offices. When airborne diseases are under rated, they generate pandemic diseases and spread to over a million people. They are very pervasive diseases. They cause a series of discomforts to their victims, such as high fever, abnormal breath, vomiting, stooling. Airborne diseases affect human respiratory track. Hence, they are diseases of the respiratory track. Airborne diseases mitigation is facilitated through effective classroom management, isolating, and withdrawing the erring students from the healthy students (Nosiri, 2007).

Airborne Diseases in Public Universities: A Myth or Reality

Airborne diseases are dangerous diseases. They are not supposed to be treated with levity or carelessness. They do not consider gender or age. But, medical experts revealed that children and the aged men are the worst hit. In the past decades, news about airborne diseases sounded like a mirage. Between 2019 and 2020, one of the airborne diseases called Covid-19 became pervasive up to a pandemic disease. Covid- 19 sounded like news to many Nigerians, but, when it was real in Nigeria, both children and adults regretted it, many schools including universities were closed, commercial centers, service organizations, major linkage roads were closed because of Covid- 19 pandemic. Poverty, famine, unemployment rose to the brim. Providing the needs of education institutions and general administration of educational institutions are facilitated with effective education planning (Uwazuruike, 2021). Many lives were lost, government policies restricted granting burial to dead people. It was then Nigerians came to realize that airborne diseases are deadly diseases.

Losses Caused by Airborne Diseases in Public Universities

People scamper for safety when they hear that airborne diseases have started tormenting people in organizations, especially in education institutions. This fact is not far-fetched in public universities. When it is observed that more than 80% of students can contact airborne diseases especially, which their symptoms results to frequent coughs, difficulty in breathing and pains in the joints, it is sacrosanct that students will rely on medical advice to stay at home. One of the key factor for administration of educational institutions are students and personnel management (Anyaogu, 2021). Teaching and learning are protracted until, when the news and traumas of the airborne diseases subsides. School activities will be abandoned; both students and lecturers will scamper for safety. This will result to academic backwardness to affected public university. In the same vein, when public universities resumes their academic activities, teaching and learning are rushed, semester examinations are taken to enable students meet up with the demands of universities academic calendar. These situations have resulted to inadequate poor teaching and inadequate learning to affected students in public universities in Nigeria. Students who continue to nurse fears about these airborne diseases and refused to resume schooling will definitely miss lectures and perform poor in semester examinations. On the other hand, airborne disease pandemics, causes loss of students, costs of providing and administering vaccines and other medical logistics will be very heavy financial burdens to affected public universities. In extreme cases, when airborne diseases spread to more than 90% of students, government interventions and policy legislations causes the affected public universities to constant supervision and monitoring by government, thereby putting more fears on students and the entire university staff. Educational management does not only concern payment of staff salaries but the general management of educational institutions in health of students and staff are among these key factors (Ogunu, 2000).

Types of Airborne diseases

Airborne diseases include common cold, cough, scarlet fever, influenza, diphtheria, measles, mumps whooping cough and pulmonary tuberculosis. Airborne diseases are very devastative diseases.

Symptoms of Airborne diseases to the affected

There are many ways airborne diseases can cause symptoms to people they have affected. Effective reduction of health problems revolves on effective hygienic practices and good medication (Kaiser etal, 2022). Those symptoms include: headache, persistent stooling, vomiting, rashes, fast hear beats, restless, muscle aches, frequent coughs, night sweats,

sneezing, ear infections, swollen glands, sinuses, inflammation of the nose blockage of air ways, swollen eyelids, reddish eyes and frequent drops of saliva from the affected person among others. Educational institutions are micro societies, collaborating with the macro societies, therefore, any activities that warrants providing good health, providing solutions to bad health conditions of staff and students must not be treated with levity (Olaboye, 2024)

Airborne Diseases Spread in Public Universities.

Poor management of spread of airborne diseases can cause deaths of millions of people in communities, local government or state (Di Q, 2017). Airborne diseases spread to people through infected victims in communities, local government and states. In line with the scope of this study, airborne diseases spread have no exception in public tertiary education institutions. Many students who have not yet contacted the germs from airborne diseases have expressed the ordeals encounter at lectures and examinations halls. These ordeals ranges from frequent coughs to vomiting from the affected victims of airborne diseases. Airborne diseases spread through air especially, from saliva, and droplets of scum. There are misconceptions that airborne diseases do not spread during hot weather or dusty zone. Airborne diseases spread through the air and can affect human beings during dry weather especially, when the droplets are kept on dusty areas. When heavy wind or machines passes across the dust particles the people closer to those particles will inhale the dust and the drops of infected scum dropped by infected persons. Airborne diseases can spread to over millions of people in communities, local government and states. On the other hand, majority of people can get in contact with airborne disease in an overcrowded, classrooms, homes, lecture halls, churches, industries, community gatherings, especially in badly ventilated classrooms, lecture halls and community gatherings. The closer individual gets to an infected person, the greater the density or spread of the germs. Bad drinking water causes accumulation of water borne and airborne diseases in the human body (Bridle, 2020 & Protor, 2022). Stuffy bedrooms or sleeping rooms are a danger to those that have not yet contacted the germs. Smokes from industrial chimneys, constitutes the spread of airborne diseases. Because they more people continue to breathe in smokes, the more it weakens their respiratory tracts and paves way for the spread of airborne diseases. Children and adults with weak respiratory tracks problems caused by smokes, are vulnerable to airborne diseases attacks, especially, women respiratory tracks (Kristin, 2007& Wang etal, 2021).

Discomforts Airborne diseases can Cause to the affected Students in lecture halls

There are different ways airborne diseases can cause discomfort to the affected Students in the classroom. The affected students suffer disgrace and isolation especially in these pick days of covid -19 pandemics. Those discomforts include: Restlessness, competitive coughs competitive scratches and yearns. In Nigeria and developed countries of the world, majority of people do not accept drugs provided by government through government dispensary agents (Weibren, 2020 & Eastwood etal, 2022)

Spread of Airborne Diseases in Africa

Airborne diseases have existed from time immemorial in Africa. Africans have used local herbs and delicacies to cure air borne diseases before the use of modern medical treatment drugs. However, the local herbs and delicacies are still in use by people in interior African villages. In this new age, people prefer the use of modern drugs, because they believed that modern drugs are costly and recommended by medical specialists who may book them for admission in their hospitals. However, beyond any doubts, modern drugs prepared by specialists but, taking the modern drugs out of prescriptions constitutes harm to human organs or systems. Nonetheless, high spread of airborne diseases occurs during extreme events of climate change usually during persistent rainfalls, heavy dawn pours and humid weather. Spread of airborne diseases starts from January to September in Africa. Pregnant women and toddlers are also the worst hit (Baiz, 2007). During the range of the above months, human bodies' resistance to diseases are very low. In this number of months, the supply of fresh fruits and vegetables that supply vitamins during their intakes are gradually reducing.

Responsibilities of Public University's Managers on Airborne Diseases Mitigation

Last incidence of Covid-19 is an eye opener to people in different sectors of Nigeria economy especially public tertiary education institutions. The following are the responsibilities pubic university's managers can use to mitigate the effect of airborne diseases in Nigeria.

1. Public University managers should enact safety and hazards polices against spread of airborne diseases in public universities in Nigeria
2. Students should maintain self- distancing from affected students or staff.
3. Wash their hands after sneeze or cough.
4. First aid treatment facilities like sanitizers at dispensary locations or units in public universities are necessary.
5. Providing health facilities and equipment for treatment of airborne diseases patients.

6. Collaborating with officials of National diseases control in Nigeria and sister agencies for airborne disease mitigation.
7. Approval of students clubs on effective hygiene practices.
8. Encouraging physical exercise's in public universities in Nigeria.
9. Telling affected students to stay at home through public universities information platforms.

Statement of the Problem

Air borne diseases are very disgraceful and devastating diseases to human health. They spread through the air to more than 200 people in a week. Pervasive nature of airborne diseases has caused some of the affected students to miss classes. Some students whom their blood cells are weak suffer from air-borne diseases monthly. Students are the worst hit including students in public universities in Nigeria because; they stay together with the affected students in poor ventilating and crowded classroom. Some students feel scared and irritated when persistent coughs from affected students' turns to vomiting and restlessness. Extreme cases of airborne diseases occur during rainy season, especially in humid weather in developing countries of the world. On the other hand, airborne diseases like rashes cause irritations and triggers the affected students to scratch their bodies even in the classroom. Airborne diseases symptoms include headache, pains, itching, vomiting, restlessness, swollen eyes, among others. Inadequate care on affected students causes students deaths especially, when they are not properly managed. Airborne diseases affect human respiratory tracks. Inhalation of industrial, kitchen smokes causes airborne disease to penetrate inside human respiratory systems. These smokes eventually speed up the damages of sensitive organs in the human body thus, resulting to human deaths. Effective enactment and implementation of environmental policies are utmost importance on airborne diseases control (Adanma, 2024).

Theoretical Framework

Maslow theory was glued for this study

Maslow propounded theory of human needs in the year (1943). Maslow explained that human beings needed five basic needs to get sustained in their lives. These needs are needed for food, clothing, air, rest and exercise. Other needs include: need for shelter or protection, to love or to be loved, need for association or need to belong to a group and need for an individual to reach the peak of the heights of expectations in their lives.

The second needs in Maslow's theory depicts safety needs. Safety needs revolve around human health needs and is important for this paper. The relevance of this theory to this study depicts that human deserves protection from all manners of harms, such as vehicular, fire or bad air intakes. It is on this premise that heads of public universities should use different health preventive strategies to protect the lives of students in public universities. These heath strategies in a piece mill includes: organizing conferences where students are counseled about imminent dangers of airborne diseases to human lives.

Methods

This paper investigated the resurgence of airborne diseases in public universities: Students View of their Pervasive effects. This study was carried out in Nnamdi Azikiwe University Awka, Anambra State. Two research questions and two hypotheses guided this study. The population of this study is 10,000 which comprised 4,500 males and 5,500 female students in Nnamdi Azikiwe University Awka, Anambra State. Sample size of this study is 170. Stratified random sampling technique was used to select 40 male students in two departments. On the other hand, 45 female students were selected in two departments, which gave a total sample size of 170 students selected as sample size in Nnamdi Azikiwe University Awka, Anambra State. Researcher developed questionnaire titled "resurgence of airborne diseases in public universities: Students View of their Pervasive effects" was used, with four rating scale of strongly agree, agree, dis agree and strongly disagree. The instrument was validated by two specialists in Madonna University Okija campus, Anambra State. Cronbach alpha statistics was used to determine the reliability coefficient of this study at 0.78 and 0.97, which shows that the instrument is reliable for this study. Mean and standard deviation were used to analyze the data while t -test of independent was used to test the hypotheses.

Results

Research question one

What are the types of airborne diseases affecting students in public universities in Nigeria?

Table1: shows the types of airborne diseases affecting students in public universities in Nigeria

Respondents:	Males 80		Females 90		
	X	S.D	X	S.D	Decision
S/NO					

1. Whooping coughs	2.50	0.10	Agree	3.10	0.10	Agree
2. Small rashes	3.60	0.10	Agree	3.60	0.10	Agree
3. Chickenpox	3.00	0.10	Agree	3.10	0.01	Agree
4. Headache	2.50	0.20	Agree	2.50	0.50	Agree
5. Diphtheria	3.01	0.00	Agree	2.50	0.50	Agree
6. Mumps	3.00	0.10	Agree	2.60	0.40	Agree
7. Heat rashes	3.00	0.50	Agree	3.00	0.01	Agree
8. Cold	3.01	0.40	Agree	3.01	0.00	Agree
9. Measles	2.60	0.10	Agree	2.50	0.10	Agree
10. Sour Throat	3.07	0.10	Agree	3 .01	0.01	Agree
Total	**28.75**	**1.60**	**Agree**	**28.92**	**1.78**	**Agree**

Test of Hypothesis

Table 2: Shows test of hypothesis on the various airborne diseases affecting students in public universities in Nigeria.

	X	S.D	t-cal	t-crt	Decision
	28.75	1.60	28.83	2.089	reject
	28.92	1.78			

The analysis above means x is 28.75with standard deviation of 1.60. in the same vein, mean for males students is 28.92, with standard deviation of 1.78. The analysis of t-cal at 0.05 alpha level is 28.83 while t-crit at 0.05 alphal level is 2.089. From the analysis, t- calculated (t-cal) is greater than t-critical (t-crit). Therefore, the hypothesis is rejected. This implies that there is no significant difference in the opinion male and female students on the various airborne diseases affecting students in public universities in Nigeria.

Research question two

What are the symptoms of airborne diseases?

What are symptoms of airborne diseases in public universities in Nigeria?

Table1: Shows symptoms of airborne diseases affecting students in public universities in Nigeria

Respondents:	Males 80			Females 90		
	X	S.D		X	S.D	Decision
S/NO						
1. Soughing	3.60	0.10	Agree	3.10	0.10	Agree
2. Stooling	2.50	0.10	Agree	3.10	0.10	Agree
3. Vomiting	3.00	0.10	Agree	3.10	0.01	Agree
4. Swollen eyes	2.50	0.20	Agree	2.50	0.50	Agree
5. Swollen chicks	3.01	0.00	Agree	2.50	0.50	Agree
6. Hotness of the body	3.00	0.10	Agree	2.60	0.40	Agree
7. Frequent saliving	3.00	0.50	Agree	3.00	0.01	Agree
8. Feeling cold	3.01	0.40	Agree	3.01	0.00	Agree
9. Weight loss	2.60	0.10	Agree	2.50	0.10	Agree
10. Crying	3.06	0.10	Agree	3 .00	0.01	Agree
Total	**28.74**	**1.60**	**Agree**	**28.91**	**1.78**	**Agree**

Test of Hypothesis

Table 2: Shows test of hypothesis on symptoms of airborne diseases in public universities in Nigeria.

	X	S.D	t-cal	t-crit	Decision
	28.74	1.60	28.83	2.089	reject
	28.91	1.78			

The analysis above mean x is 28.74 with standard deviation of 1.60. in the same vein, mean for males students is 28.91, with standard deviation of 1.78. The analysis of t-cal at 0.05 alpha level is 28.83 while t-crit at 0.05 alphal level is 2.089. From the analysis, t- calculated (t-cal)

is greater than t-critical (t-crit). Therefore, the hypothesis is rejected. This implies that there is no significant difference in the opinion male and female students on the symptoms of airborne diseases in public universities in Nigeria.

Discussion of Findings

The findings of this study revealed that there are various forms of airborne diseases in Nigeria. When airborne diseases are treated with levity, they generate into pandemics and kill unexpected number of people in vulnerable communities. Effective enactment and implementation of environmental policies are of utmost importance on airborne diseases control (Adanma, 2024). The findings revealed that the symptoms of airborne diseases are very pervasive, especially on people with respiratory tract infections. Children and adults with weak respiratory tracks problems caused by smokes, are vulnerable to airborne diseases attacks, especially, women (Kristin, 2007& Wang etal, 2021).

Airborne diseases are deadly diseases. They can kill millions of people if adequate attention is not taken by the affected, especially, where there are no government health intervention plans. Spread of airborne diseases starts from January to September. Pregnant women and toddlers are also the worst hit (Baiz, 2007). The most effective method for airborne diseases control is good hygienic practice. Bad littering of refuse causes air pollution. Effective educational planning is the solutions to school problems or issues (Uwazuruike, 2021).

Recommendations

1. Vice chancellors of public universities should carry out awareness campaigns for reducing the rate of contact of airborne diseases to students and staff through health advice or reorientations.
2. Personal hygienic is imperative for effective control of airborne diseases.
3. Handkerchiefs are recommended for the affected students and non- students. Handkerchiefs help the affected students to collate and protect their sputum or saliva from touching grounds and sensitive areas where human hands and legs can perch.
4. Posters and slogans that encourage hygienic living should be used by students and lecturers to create awareness and reduce the spread of airborne diseases in public universities.
5. Hand sanitizers and face marks are tools for prevention of airborne diseases. Lecturers and students should wear them when the diseases are suspected in their public university.

6. Self- distancing and students' orientations to stay at when infested should be encouraged. This would reduce the spread of airborne diseases.

Conclusion

Airborne diseases are diseases transmitted through air especially in poor ventilated rooms, classrooms, lecture halls, conference rooms among others. Airborne diseases are diseases that affect the human respiratory system. Airborne diseases are perceived from air or perceived from the sputum or scums of infested persons dropped on the ground. Airborne diseases travel long distance areas through the air. It takes longer hours before the virus dies off or gets weakened for human infestation. They are indoor and outdoor transmission diseases. Symptoms of airborne diseases include fever, headache, itching, high blood pressure, vomiting, stooling, restless, weight loss, pains, swollen eyelids, frequent drops of sputum by the affected, crying and tantrums. The aged people, children and adults whom their bodies are resistant to diseases are the worst hit. They are popular major news of radio and television stations in Africa and Diasporas countries of the world. When the actions of airborne diseases grows into pandemics, where 50 to 100 people in communities, organizations like schools, industries are affected, the daily increase results to closure of affected schools and industries. On the other hand, if the rate of transmission is high in communities, the people resident in those communities will be quarantined or evacuated to camps where they will be properly quarantined through government intervention strategies or programmes. In public universities, if the action of airborne diseases affects only selected few students, the affected students will go home. Those students are likely to miss lectures and examinations. In the same vein, if the rate of the diseases spread, are frequent or spontaneous, the entire students and staff will be told to go home until when the rate of the diseases spread gets subsided. Airborne diseases cause deaths of many students. Some students who cannot withstand the spread changes their schooling to other schools if the rate of spread is profound in a particular university.

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