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STRATEGIES USED IN PREVENTING AIR POLLUTANTS ON OCULAR HEALTH AMONG ROAD TRANSPORT WORKERS IN IMO STATE, NIGERIA

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ABSTRACT: ***Background:*** *Air pollution significantly affects human health, particularly ocular health, yet limited research has been conducted on its impact among road transport workers in Nigeria. These workers are frequently exposed to harmful pollutants due to their occupation, contributing to various ocular health issues. Aim: This study aimed to determine the strategies used by commercial drivers and road transport workers in preventing the effects of air pollutants on ocular health in Imo State, Nigeria.* ***Methods:*** *A cross-sectional descriptive study was conducted among 552 participants, including drivers, conductors, and traders in designated motor parks across the three senatorial zones of Imo State. Data were collected using structured questionnaires and clinical examinations. Socio-demographic information, occupational history, and preventive measures against air pollution were recorded. Data analysis was performed using SPSS software.* ***Results:*** *The majority of participants (69%) did not employ any preventive measures against air pollution. Among the 31% who did, strategies included wearing sunglasses (7.2%), wearing protective glasses (6.9%), closing eyes in polluted areas (5.1%), avoiding areas with smoke (2.2%), and* undergoing eye check-ups (1.8%). *Commercial drivers were the least likely to seek preventive care, reflecting a concerning lack of awareness.* ***Conclusion:*** *The study highlights a significant gap in awareness and practice of preventive measures against air pollution's impact on ocular health among road transport workers. Raising awareness and implementing targeted health education programs are essential to reduce the risk of pollution-related ocular diseases.*

KEYWORDS: Air Pollution, Ocular Health, Road Transport Workers, Preventive Strategies, Nigeria, Commercial Drivers**.**

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INTRODUCTION

All life on Earth depends on air for survival and development. Its quality has a direct impact on human health and is strongly influenced by the level of civilization. Air pollution is a significant factor in the worldwide burden of disease. Despite stricter air quality rules, mortality from air pollution increased in both emerging and developed nations, including the United States (Cohen et al., 2017). While there are many natural sources of air pollution, like volcanoes, wildfires, and bushfires in particular developing countries, majority of significant air pollution has been spread by human technology since the Industrial Revolution. Industrialization and international travel have progressed with human civilization. Increased use of fuel-burning motorized vehicles and factories because of industrialization have led to high levels of air pollution and poor air quality. For instance, the Central Weather Bureau of Taiwan reports that in January 2021, the air quality index (AQI) in south Taiwan, which is where majority of the island's power plants are located, was between 130 to 160, which is deemed unhealthy for the general population and discourages outdoor activities.

It goes without saying that air pollution is bad for one’s health. Exposure to the byproducts of burning the fuel used in most of our motor vehicles has been specifically linked to an elevated risk of lung cancer, respiratory infections, stroke, heart disease as well as death from these conditions. A recent study has included eye illness yet another alarming pollution-related risk.

Globally, there is growing worried over air pollution, particularly indoor and outdoor pollution in high-income and low-income nations, respectively (Shima, 2017). According to Brook et al. (2004) and Pope et al. (2004), most studies have concentrated on the connection between air pollution and cardiopulmonary disorders like asthma, chronic obstructive pulmonary

disease (COPD), lung cancer, heart disease, and stroke. A growing body of evidence also reveals that other systems, including the reproductive, nervous, and ocular systems, are also impacted by air pollution. For instance, research has connected air pollution to psychological stress (Sass, et al., 2016), neurodegeneration (Calderon-Garciduenas, et al., 2016), and male and female infertility (Jurewicz, et al., 2018; Conforti, et al., 2018). Neurodegeneration affects the eye significantly and leads to age-related macular diseases (AMD).

According to Kemp, et al. (2011), air pollution is made up of a complex mixture of hazardous particles and gas-phase pollutants that are released into the atmosphere because of either natural or human activity. Sulfur dioxide (SO_2), nitrogen dioxide (NO_2), carbon dioxide (CO_2), nitrogen monoxide (NO), carbon monoxide (CO), nitrogen oxides (NOx), particulate matter 2.5 (PM2.5), and particulate matter 10 (PM10) are just a few of the pollutants in the air that are primarily produced by burning fuels or by industrial processes. Daily activities such as cooking, decorating the home, and driving also produce COx, NOx, and volatile organic compounds (VOCs), in addition to traffic and industrial activity.

According to the U.S. Environmental Protection Agency (EPA), 6 major air pollutants that cause major health effects include: Ground-level ozone, Nitrogen dioxide, Sulfur dioxide, Carbon monoxide, Lead, Microscopic particles called particulate matter.

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It has been established that some air pollutants have debilitating effects on visual health. These debilitating effects include but not limited to blindness. In spite of these debilitating effects on ocular health, very limited studies have been done in this area in Nigeria. The level of ignorance exhibited by motorists on the influence of air pollutants on ocular health is high and worrisome, especially on the part of commercial drivers and other road transport workers who incidentally are the worst hit, given the fact that their occupation exposes them more to the dangers of air pollutants. The deplorable condition of our roads and the poor maintenance of vehicles have not helped matters either. These emissions especially from poorly maintained vehicles have led to the high level of pollution both on our roads and in the parks. This study will therefore elucidate the implications of high level of ignorance among drivers and other road transport workers with the intention of creating awareness of the consequences associated with it. It is believed that the knowledge of these consequences will help compel road transport workers comply with application of safety measures.

Policies and investments supporting cleaner transportation would reduce one of the key sources of outdoor air pollution. Access to environmentally friendly transportation would also help maintain ambient air pollution in our motor parks. The main objective of this study was to determine the Strategies Used in Preventing Air Pollutants on Ocular Health

METHODS

Study Design

The study design was both rural and urban based. It is a cross-sectional descriptive and observational study in which the influence of air pollutants on ocular health of commercial drivers and road transport workers in Imo State were determined using a well-structured questionnaire and instruments for clinical examinations of subjects

Area of Study

The study was conducted in designated motor parks in the three senatorial zones in Imo State, southeast, Nigeria. Imo State is comprised of 27 local government areas with the capital at Owerri. It has a population of 4.928 million (2017). The population density varies from 230 to 1,400 people per square kilometer. The people of the State are mainly Christians.

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Figure 1: showing map of Imo state with the 27 LGAs

Study Population

Imo State where the study population was based has a population of 4.928 million (2017). Imo state has about four thousand (4,000) registered road transport workers. However, selected designated motor parks in Imo state were used for the study.

Inclusion Criteria

The inclusion criteria in this study were drivers, road transport workers and traders/business people from the respective motor parks under study, who carry out their daily activities in the park.

Drivers and Road Transport Workers who are not on any topical application for the eyes.

Exclusion Criteria

The exclusion criteria were other drivers, road transport workers, traders and passengers who do not carry out their daily activities at the designated parks under study. Drivers, Road Transport Workers and traders/business people who applied eye drop less than two weeks ago.

Sample Size Determination

According to the 2017 census, Imo State has a population of approximately 4.928 million people spread across the State. The subjects (drivers and road transport workers) were drawn from randomly selected motor parks in the three senatorial zones of Imo State selected

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through lottery. The lottery was done between the accredited parks in the three senatorial zones of Imo state. The accredited parks in Imo state were gotten from the state ministry of Transport before the random selection of the motor parks, population of the respective workers of each motor park were gotten from their data base. Sample size was therefore calculated thus:

$n = Z^2Pq/d^2$

Where n = minimum sample size for the study.

P = proportion of the total population required for the study. q = 100 – P

Z = 1.96

d = absolute sampling error.

Sampling Technique

The selection of motor parks in Imo State was done using combinations of Stratified Simple random sampling, purposive sampling and Simple random sampling methods. The State was first divided into three geo-political zones, namely: Owerri, Orlu and Okigwe. In Owerri zone, 3 parks were selected, one park each for vehicles going to either of the three zones i.e one park for vehicles going to Owerri zone, one park for vehicles going to Orlu zone and another park for vehicles going to Okigwe zone. At Orlu zone, Simple random sampling was applied to select a park. At Okigwe zone, Simple random Sampling was also done to select a park.

Instruments for Data Collection

The instruments used for data collection include:

Questionnaire for information, which were structured in such a way as to elicit necessary information from the participants, especially questions that will tend towards addressing the objectives of study. The survey was tended towards extracting information on demographic, occupational history, medical history and self-reported ocular symptoms.

Validity of Instruments

The study questionnaire was carefully prepared by me and was approved by my supervisor after some corrections.

Reliability of Instruments

The questionnaire used and the clinical examinations done, were approved by my supervisor, department of Public Health and the School of Health Technology. Tests and re-tests using Spearman's correlation coefficient etc were applied to certify the results.

Method of Data Collection

The questionnaire was administered by me and research assistants on the field after informed consent was obtained. The literate respondents were allowed to fill the forms themselves though with guidance while for the non-literate respondents, the questions were translated to

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them, and their answers were filled by the researcher. Data were collected using questionnaire designed to extract relevant and reliable information on the influence of air pollutants on ocular health from the drivers and road transport workers and clinical examinations were done to determine the influence of air pollutants on visual health of subjects under study.

The number of questionnaires that will be shared will be dependent on the sample size calculated, bearing in mind that all the questionnaires may not be valid and/or returned.

Method of Data Analysis

The software name originally stood for Statistical Package for the Social Sciences (SPSS), has now been changed to Statistical Product and Service Solutions also known as IBM SPSS, is a software package used for the analysis of statistical data. The analysis followed these steps:

Determining the data to be analysed.

1. Gathering the data.
2. Preparing the data for analysis.
3. Examining the data to find patterns and relationships.
4. Drawing conclusions from the analysis.

Data were analyzed using SPSS package as the micro software while chi square, frequency tables, histogram, pie chart, figures etc. were the statistical tools used to draw conclusions for the analysis.

Informed Consent

Informed consent was gotten verbally from all the participants in this study. The confidentiality of participants" personal and health information were ensured. Nevertheless, a written consent was gotten from the State Ministry of Transport and Nigerian Union of Road Transport Workers (NURTW).

RESULTS

Socio-Demographic Distribution of the Study Participants

A total of 552 transport workers were used in the present study. They include 374 (%) drivers, 62 (t) the distribution for socio-demographic characteristics of the study participants is presented on table 1.0. The table shows that in the overall, 172 (31.2%) of the study group were between 41 -50 years old while 151 (27%) were within 51 – 60 years old. The lowest proportion of the group were the 21 – 30 years old (31: 5.6%) followed by the over 60s at 79 (14.3%). The largest age group among the drivers were the 41 -50 and the 50 -60 at 118 (31.6%) each. Only 9 (2.4%) of the drivers were between 21 – 30 year of age.

Among the RTWS, coincidentally there were 15 (24.2%) workers each for the 31 -40, 41 – 50 and 51 - 60. The 41 – 50 years were 39 (33.6%) among the traders or business workers while

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the 51 -60 and the above 60s were 18 (15.5%) each.

Majority of the study group were of male gender (Drivers & Conductors = 374: 100%; RTWS = 48: 77.4%, Traders/Business = 64: 55.2%; Overall = 486: 88%). The largest rate females were found within the traders (52: 44.8%), while none of the drivers was a female. Clear majority of the study group were married (Drivers = 299: 79.9%; RTWS = 48: 77.4%, Traders/Business =91: 78.4%; Overall = 438: 79.3%), The major group were predominantly Christians (Drivers = 371: 99.2%; RTWS = 59: 95.2%, Traders/Business =108: 93.1%; Overall = 538: 97.5%), with only few Muslim (Drivers = 1: 0.3%; RTWS = 0: 0.0%, Traders/Business = 2: 1.7%; Overall = 3: 0.5%) and other religion such as traditional religion (Drivers = 2: 0.5%; RTWS = 3: 4.8%, Traders/Business = 6: 5.2%; Overall = 11: 2.0%).

Up to 217 (39.3%) in all make 4000 – 5999 naira in a day, while slightly above one quarter of the group (142: 25.7%) make up to 6000 naira and above. Among the drivers, 148 (approximately 40%) make 2000 -3999 naira daily while among RTWS 42 (67.7%) make 4000 – 5999 naira in a day and none of them make less that 2000 naira daily. For the traders and those engaged with business, 54 (46.6%) make 4000 – 5999 naira on daily bases.

Largest percent of the study group (255: 46.2%) were from Owerri geographical zone of Imo state (Drivers= 47.9%, RTWS = 43.5%, traders/ business = 42.2%), while 163 (29.5%) and 134 (24.3% respectively were from Orlu and Okigwe zones. The Okigwe zone recorded the lowest number of participants among each group in the three geo political zones (Drivers= 23.8%, RTWS = 27.4%, traders/ business = 24.1%, Overall= 24.3%).

Table 1 Socio-Demographic Distribution of the Study Participants

Socio- Demographic	Drivers Conductors		&RTWS		Traders / Business		OVERALL	
	Number	%	number	%	Number	%	number	%
21 – 30	9	2.4	8	12.9	14	12.1	31	5.6
31- 40	77	20.6	15	24.2	27	23.3	119	21.6
41- 50	118	31.6	15	24.2	39	33.6	172	31.2
51 – 60	118	31.6	15	24.2	18	15.5	151	27.4
>60	52	13.9	9	14.5	18	15.5	79	14.3
Total	374	100.0	62	100.0	116	100.0	552	100.0
Sex								
Male	374	100.0	48	77.4	64	55.2	486	88.0
Female	0	0.0	14	22.6	52	44.8	66	12.0
Total	374	100.0	62	100.0	116	100.0	552	100.0
Marital Status								
Married	299	79.9	48	77.4	91	78.4	438	79.3
Single	62	16.6	12	19.4	16	13.8	90	16.3
Separated/Divorced	13	3.5	3	4.8	9	7.8	25	4.5
Total	374	100.0	62	100.0	116	100.0	552	100.0
Religion								
Christianity	371	99.2	59	95.2	108	93.1	538	97.5

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Moslem	1	0.3	0	0.0	2	1.7	3	0.5
Other	2	0.5	3	4.8	6	5.2	11	2.0
Total	374	100.0	62	100.0	116	100.0	552	100.0
Daily Income								
< 2000	15	4.0	0	0.0	12	10.3	27	4.9
2000- 3999	148	39.6	6	9.7	21	18.1	175	31.7
4000- 5999	121	32.4	42	67.7	54	46.6	217	39.3
6000+	105	28.1	14	22.6	23	19.8	142	25.7
Total	374	100.0	62	100.0	116	100.0	552	100.0
Zone								
Owerri	179	47.9	27	43.5	49	42.2	255	46.2
Orlu	106	28.3	18	29.0	39	33.6	163	29.5
Okigwe	89	23.8	17	27.4	28	24.1	134	24.3
Total	374	100.0	62	100.0	116	100.0	552	100.0

Strategies Used in Preventing Air Pollutants on Ocular Health

Among the group studied, while 381 (69%) do not apply preventive measures against air pollutant on ocular health. The strategies applied to prevent air pollutant are contained on table 4.5. It can be observed from the table that those that wear sunshade as preventive measures against air pollutants were 40 (7.2%) while 38 (6.9%) of the study population wear glass as preventive measures. A total of 28 (5.1%) indicate that they close their eyes, 12 (2.2%) avoid areas of smoke and 11 (2.0%) wind up glasses. Only 10 (1.8%) of the study group do go for eye checkup as a preventive measure against air pollutants. Less than 1% of the drivers and the conductors go for eye checkup (drivers= 0.8%; conductors – 0.9%).

Table 3.2: Strategies Used in Preventing Air Pollutants on Ocular Health

	Drivers &RTWS Conductors				**Traders / Business**		**TOTAL**	
Use of Preventive Measures	**Drivers Conductors &Other Workers**			**Road Transport Business**				
	Drivers	**Conductors**	**Loaders**	**Ticket Givers**	**Security**	**Traders/ Business**	**Other business**	**Total**
	Freq (%)	**Freq (%)**	**Freq (%)**	**Freq (%)**	**Freq (%)**	**Freq (%)**	**Freq (%)**	**Freq (%)**
Wear Glasses	25 (9.5)	7 (6.3)	0 (0.0)	2 (14.3)	0 (0.0)	4 (37.0)	0 (0.0)	38 (6.9)
wear Sunshade	21 (8.0)	7 (6.3)	1 (2.8)	1 (7.0)	1 (8.3)	8 (7.4)	1 (12.5)	40 (7.2)
Self-medication	10 (3.8)	7 (6.3)	4 (11.1)	0 (0.0)	1 (8.3)	5 (4.6)	1 (12.5)	28 (5.1)
Eye check-up	2 (0.8)	1 (0.9)	1 (2.8)	2 (14.3)	1 (8.3)	3 (2.7)	0 (0.0)	10 (1.8)

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Close eyes	15 (5.7)	11 (9.8)	4 (11.1)	0 (0.0)	0 (0.0)	2 (1.9)	0 (0.0)	32 (5.8)
Avoid Area of Smoke	5 (1.9)	2 (1.8)	3 (8.3)	1 (7.0)	0 (0.0)	1 (0.9)	0 (0.0)	12 (2.2)
Wind-up glass	6 (2.3)	5 (4.5)	0 (0.0)	0 (0.0)	0. (0.0)	0 (0.0)	0 (0.0)	11 (2.0)
None	178 (67.9)	72 (64.3)	23 (63.9)	8 (57,1)	9 (75.0)	85 (78.7)	6 (75.0)	381 (69.0)
Total	262	112	36	14	12	108	8	552

DISCUSSION

The influence of air pollutants on ocular health is a critical area of concern, particularly for individuals in professions heavily exposed to outdoor environments, such as commercial drivers and other road transport workers. In Imo State and other places, where these workers are a vital component of the transportation sector, understanding the potential impact of air pollutants on their ocular health is of paramount importance. This discussion delves into the specific challenges and risks faced by these professionals, considering factors like exposure levels, prevalent ocular issues, and the crucial role of awareness and preventive measures in mitigating potential harm. Through a comprehensive analysis, we aim to shed light on the complex interplay between environmental factors and ocular health outcomes in this specific demographic, ultimately providing valuable insights for targeted interventions and strategies to safeguard the vision and well-being of commercial drivers and road transport workers in Imo State.

The demographic composition data presented in Table 4.1 highlights distinctive age and occupational distributions within the motor park's population. Notably, most Drivers fall within the 41-50 age range, a pattern consistent with studies in the transportation sector (Afolabi, Alli, and Falayi, 2021). This suggests an accumulation of experience within this age bracket. Other Road Transport Workers (Other RTWs) exhibit a more evenly distributed age representation, possibly indicating a less age-dependent nature of their occupation. In contrast, Traders/Business owners show a varied demographic spread, with a concentration in the 31-50 range, reflecting a mix of established entrepreneurs and budding businesspersons. The gender distribution reveals a significant gender imbalance among Drivers, with a stark majority being male, which aligns with trends observed in the transportation industry (Xlu, 2012). Conversely, Traders/Business owners demonstrate a relatively balanced gender distribution, indicating a more inclusive participation of both genders in this category. The Other RTW category reflects a noticeable gender imbalance, with a substantial majority being male, underscoring a gender disparity in this occupational group. In marital status, most of the subjects were found to be married with drivers dominating

at 79.9% and other road transport workers least at 77.4%. In religion most of the subjects were Christians at 97.5% with Muslims and others trailing at only 2.5%. In income accruing daily, there is no clear-cut winners. However, result revealed that drivers have the greatest percentage (28.1%) for daily income of six thousand naira or more while traders are least at 19.8%. Further, the examination rates across different zones are notable. Owerri stands out with the highest testing rate at 46.20%, indicative of a proactive approach to health

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monitoring in that zone. This aligns with recommendations emphasizing the importance of regular health check-ups for workers, especially in high-risk occupations (Paguntalan and Gregoski, 2016). In contrast, Orlu and Okigwe exhibit lower testing rates at 29.50% and 24.30% respectively, suggesting potential variations in health monitoring practices across zones, which may warrant further investigation.

The findings from Table 4.3 shed light on the various strategies employed by road transport workers to mitigate the impact of air pollution on ocular health. These strategies encompass a range of adaptive measures, including wearing glasses, using sunshades, self-medicating, undergoing regular eye check-ups, closing their eyes, avoiding areas with smoke, and winding up windows. Among drivers, the most prevalent strategy was wearing glasses, with 9.4% of respondents adopting this measure. This suggests a recognition of the potential risks posed by air pollution to their ocular health. Additionally, a significant number of drivers used sunshades (7.5%) and resorted to self-medication (3.7%), highlighting the diverse approaches taken to safeguard their eyes. For Other Road Transport Workers (ORTWs), going for eye check-up (9.7%), closing their eyes (9.7%) emerged as the predominant strategies, demonstrating their awareness of the need for protection of their eyes. However, it's noteworthy that fewer ORTWs engaged in practices like wearing glasses (3.2%) or sunshades (4.8%) indicating potential areas for targeted education or intervention.

Among Traders/Business owners, wearing sunshades (6.9%) was also the most prevalent strategy, mirroring the pattern observed among drivers. Interestingly, the percentage of participants who closed their eyes (1.7%) or avoided areas with smoke (0.9%) was relatively lower in this group. This could be attributed

to differences in work environments or levels of exposure to pollutants. These strategies align with some patterns observed in previous studies. For instance, the prevalence of wearing glasses as a protective measure among drivers mirrors the findings of Mandell et al., (2020), who reported a similar trend among outdoor workers in urban environments. This suggests a consistent recognition of the importance of eye protection in high pollution settings.

However, it's worth noting another similarity in the strategies favored by RTWs compared to findings in a study conducted by Chua et al. (2019) among a similar occupational group. While going for eye check-ups (9.7%) was the predominant strategy among ORTWs in our study, Chua et al. (2019) also found a higher preference for regular eye check-ups. This corroboration may be attributed to similarity in specific job functions or varying levels of awareness campaigns targeting these groups.

CONCLUSION

This study demonstrated the multifaceted relationship between air pollution exposure and ocular health among park workers in Imo State, Nigeria. The findings underscore the critical importance of understanding and addressing the potential hazards posed by environmental factors on visual well-being. The prevalence of various ocular conditions, including dry eye syndrome, pterygium, and pinguecula, among park workers highlights the need for targeted interventions and increased awareness regarding ocular health in this occupational group. Moreover, the observed variations in visual acuity levels and the presence of specific eye

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problems emphasize the dynamic nature of environmental influences on ocular health.

The environmental parameters measured at different parks reveal significant fluctuations in key metrics such as CO2 and NO2 levels. These variations suggest the presence of diverse air quality profiles across different locations and time periods, highlighting the need for tailored mitigation

RECOMMENDATIONS

Based on the findings of this study, further studies are highly recommended to address areas which this study failed to address adequately. Apart from the recommendation of further studies which is highly

recommended, several other recommendations emerged to promote the ocular health and overall well-being of park workers in Imo State, Nigeria:

i. Enhanced Occupational Health Education: Implement targeted educational programs to raise awareness among park workers about the potential ocular health risks associated with air pollution. Provide training on preventive measures and strategies to mitigate these risks, including the use of protective eyewear and regular eye check-ups.

ii. Regular Eye Check-ups: Encourage Park workers, especially Drivers and Road Transport Workers (RTWs), to undergo regular eye examinations to detect and address ocular conditions at an early stage. Provide access to affordable and accessible eye care services within close proximity to their workplaces.

iii. Air Quality Monitoring and Regulation: Advocate for the establishment of comprehensive air quality monitoring systems in and around parks. Work with relevant authorities to enforce regulations aimed at reducing air pollution levels, particularly in areas with high vehicular traffic and industrial activity.

iv. Personal Protective Equipment (PPE): Provide park workers with appropriate PPE, such as high- quality sunglasses, safety glasses, and sunshades, to mitigate the adverse effects of air pollution on their ocular health time. This will provide valuable insights into the effectiveness of implemented interventions and help refine strategies for long-term ocular health preservation.

v. Collaborative Efforts: Foster partnerships between government agencies, non-governmental organizations, healthcare institutions, and environmental advocacy groups to leverage collective expertise and resources in addressing ocular health challenges associated with air pollution.

vi. It is beneficial to identify vulnerable people whose quality of life will be significantly impaired by environmental changes and provide counter measures in the form of protection or treatment.

vii. Better technologies in monitoring of pollutants and assessment of the eye will facilitate progress in this field.

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CONTRIBUTION TO KNOWLEDGE

This study deviated from most previous studies especially in Nigeria. A lot of studies in the past dwelt more on the association of air pollutants with the lungs and the heart. A lot of people are ignorant of the influences of air pollution. Many other people who are aware of some of the influences of air pollution to health but never associated them with ocular health. Many other people who are aware of its influences on ocular health fail to do anything towards its consequences. It is therefore expected that this study will achieve the following:

1. It will serve as an eye opener to many people and will certainly stimulate a lot of interest in this area.
2. The association of glaucoma with air pollutants is an area a lot of people would not have thought of.
3. It is therefore expected that this study will go a long way towards stimulating awareness of influence of air pollutants on ocular health.
4. The results of this study showed that awareness created consciousness towards applying preventive measures and these preventive measures proved to bring about reduction towards ocular health problems.
5. This study therefore will enrich the populace knowledge especially road transport workers towards the influence of air pollution on ocular health thereby curbing ocular health problem and ultimately reducing blindness.

Further studies are hereby recommended to address other issues this study failed to address.

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Authors Contributions

All Authors contributed to the execution of this research

Competing Interests

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