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Investigating Electronic Media's Impact on Noise Pollution Awareness Among University Students in Lahore, Bridging the Gap toward Sustainable Urban Environments

Naveed Iqbal, Faiza Sajjad, Fatima Hassan*, Samina Raiz, Aqsa Shabbir, Huma Tauseef, Amina Muazzam

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Naveed Iqbal, is currently affiliated with Department of Mass Communication, Lahore College for Women University, Lahore, Pakistan.

Email: naveed.iqbal@lcwu.edu.pk

Faiza Sajjad, is currently affiliated with Department of Mass Communication, Lahore College for Women University, Lahore, Pakistan.

Email: faizasajjad@gmail.com

Fatima Hassan, is currently affiliated with Department of English, Lahore College for Women University, Lahore, Pakistan.

Email: fatti.nain@hotmail.com

Samina Raiz, is currently affiliated with Department of Gender and Development, Lahore College for Women University, Lahore, Pakistan.

Email: samina.raiz@lcwu.edu.pk

Aqsa Shabbir, is currently affiliated with Department of Electrical Engineering, Lahore College for Women University, Lahore.

Email: aqsa.shabbir@lcwu.edu.pk

Huma Tauseef, is currently affiliated with Computer Science Department, Lahore College for Women University, Lahore, Pakistan.

Email: huma.tauseef@lcwu.edu.pk

Amina Muazzam, is currently affiliated with Applied Psychology Department, Lahore College for Women University, Lahore, Pakistan.

Email: amina.muazzam@lcwu.edu.pk

Abstract

This study investigates the influence of electronic media, particularly television, on noise pollution awareness among university students in Lahore, Pakistan. The research aims to assess the role of role of TV electronic media in raising awareness about noise pollution among university students in Lahore. The approach in this research is quantitative by using survey method through purposive sampling. This is done by collecting data from 150 students from three prominent universities, namely Lahore College for Women University, the University of Central Punjab, and Punjab University. The findings reveal that 76% students recognize noise pollution as a significant environmental threat with detrimental effects on health and the environment. Additionally, 72% respondents were affected by Traffic noise. Furthermore, there was a perceived lack of emphasis on this issue in electronic media, specifically television broadcasts. This research contributes to SDG 11 by emphasizing the importance of raising awareness about environmental issues such as noise pollution for the creation of sustainable and livable cities and communities.

***Corresponding Author:**

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INTRODUCTION

In the contemporary world, amidst the hustle and bustle of urban life, noise pollution stands out as a ubiquitous yet often overlooked environmental challenge. While

modernization and urbanization have brought about undeniable benefits, they have also unleashed a cacophony of sounds that pervades our daily lives. This incessant noise, ranging from the hum of traffic to the roar of industrial machinery, has significant repercussions for both human health and the environment. Noise pollution, defined as unwanted or excessive sound that disrupts the natural balance of human or animal life, has emerged as a pressing concern globally (Schmidt, 2005). The World Health Organization (WHO) ranks it as the third most harmful form of pollution, trailing only behind air and water pollution (WHO, 2005). Its adverse effects on human health are manifold, encompassing physical ailments such as hearing loss, cardiovascular disruptions, and sleep disturbances, as well as psychological distress (Singh, 2018). Moreover, noise pollution poses a threat to biodiversity, interfering with the communication and reproductive patterns of various animal species. In the context of Pakistan, particularly in metropolitan cities like Lahore, noise pollution has reached alarming levels. The incessant honking of horns, the roar of engines, and the clamor of urban activities create a sonic landscape that permeates every corner of the city.

Despite its deleterious effects on public health and well-being, noise pollution remains inadequately addressed in public discourse and policy initiatives. The role of mass media, particularly TV and electronic media, in shaping public awareness and discourse on environmental issues cannot be overstated. Television, as a pervasive and influential medium, has the power to reach millions of viewers and shape public perceptions and attitudes. However, the extent to which TV electronic media in Pakistan addresses the issue of noise pollution and educates the public about its impacts remains underexplored. This research paper seeks to fill this gap by investigating the role of TV electronic media in raising awareness about noise pollution among university students in Lahore. By examining the coverage and content of TV programs, news segments, and documentaries related to noise pollution, as well as conducting surveys and interviews with university students, this study additionally assess the level of awareness and understanding of noise pollution among the younger generation.

Furthermore, this research will explore the challenges and opportunities faced by TV electronic media in effectively communicating information about noise pollution. From the sensationalization of news stories to the lack of expertise among reporters, various factors may hinder the accurate and comprehensive coverage of this critical issue. Ultimately, this study aims to shed light on the potential of TV electronic media as a catalyst for raising awareness and fostering informed public discourse on noise pollution. By identifying gaps in coverage and areas for improvement, it seeks to inform strategies for enhancing media engagement and advocacy efforts to mitigate the impacts of noise pollution on public health and well-being.

LITERATURE REVIEW

Research conducted by Farooqi, et al. (2019), various areas of Faisalabad city were selected to track the morning, evening, and night levels of noise pollution, to determine the non-auditory impacts of noise on human wellbeing. Two industries and 43 popular/occupied areas of Faisalabad Saddar have been chosen to consider noise pollution by using a sound level meter. Researchers use survey methodology for their findings. The highest sound weight was 102 dB inside the Mian Muhammad Siddiqi Textile Loom production unit in the evening. According to the study, 94 percent of respondents were faced with migraine issues, 76 percent with restlessness, 74 percent with

hypertension, 74 percent with physiological pressure, 64 percent with high blood pressure, and 60 percent with noise. Noise production is higher than normal and induces sound-related effects for humans as well as non-auditory ones. Another study analyzed the noise pollution level in major areas in the Ota metropolis, about 41 locations across Ota Metropolis were selected to collect data three times a day morning, afternoon, and evening. This study revealed that noise levels are far away from WHO standards, and there is no significant difference in noise pollution levels in all three times from the whole day (Oguntunde, et al. 2019). The degree of commotion contamination in the open and private emergency clinics in Lahore was explored by Baqar, M et al. (2018), who recorded twenty open and ten private medical clinics. The researcher noticed that equal constant sound (Leq) values fluctuate altogether in various emergency clinic offices on various occasions. The study revealed that noise pollution level was much higher in every department of the public hospital during day time and there was no significant difference in the night time. Leq rates have been found 8 Role of TV in creating awareness regarding noise pollution to be higher than the WHO requirements for all hospitals and lower sound level was recorded in private hospitals as compared to public hospitals.

A qualitative study was carried out in different areas of Nagpur city, to uncover the issue as the majority of the inhabitants were not completely aware of the seriousness of noise as a type of pollution. Traffic noise and development activities appeared as a significant reason for noise pollution in Nagpur city. Most of the respondents were reluctant to remark on noise, when it results from religious practices. Therefore, the severe execution and authorization of noise pollution control laws should be added to control the noise pollution, and its detrimental effects on the residents of the Nagpur city (Dorikar, 2015). Likewise, Munzel et al. (2014) identified that pressure and unsettling effects during rest periods at night, due to noise pollution can contribute to cardiovascular disease, and increase detrimental effects on a person's cardiovascular strength relative to day-to-day noise pollution. The study suggested that policymakers should consider the health impact of noise reduction interventions, and propose that noise problems should be handled and sound safety methods should be used wherever the source regulation is not feasible.

Different sound-related and non-sound-related effects of commotion contamination on human wellbeing were explored by Basner et al. (2014). This examination perceived that an upgraded music gadget, headphones, stage shows, and discos have expanded drastically for youthful people. The most noteworthy noise level was seen in the commercial zone being 72.05 to 81.11 dB, trailed by residential zone 69.75 to 80.90 dB, industrial zones 68.00 to 81.50 dB, and transportation zone 70.77 to 84.03dB. Followed by four distinct classifications of Lahore (LHR) city and residential, commercial, industrial, and transportation zones. The noise levels recorded in this investigation had an extreme impact on the sensory system, and all the related diseases were found in the population. To examine how day time noise exposure is far away from the WHO recommendations and three health problems i.e. heart disease, stroke, and dementia, Harding et al. (2013) evaluated the factors that are strongly associated with high blood pressure in the UK population. The researcher selected 1160 locations in the United Kingdom to test exposure to noise pollution. The findings showed that exposure to noise pollution was higher than the WHO recommendation and that there were 542 cases of heart attack, 788 cases of stroke, and 1169 cases of dementia in the United Kingdom every year.

Similarly, another study conducted by Schmidt et al. (2013) for assessing the impact of evening clamor discharges on human prosperity, and concentrated on clamor emanations brought about via airplane commotion during the night on 75 stable volunteers matured 20-60 years. At night, the analyst watched vital estimations of the beat and circulatory strain of the individuals. The volunteers were approached to visit the lab the following morning, where they performed ultrasound tests on the principal supply route in the arm that affected the bloodstream, to gauge changes in its distance across. The aftereffects of the tests uncovered that the veins were stiffer following a night of airplane clamor, and the more severe the commotion, the less adaptable the veins were, which portray the endothelial crack, and blood of volunteers was tried for pressure hormones following a loud night, there was an enormous increment in adrenaline levels. The findings revealed that drawn-out presentation to airplane clamor will prompt exorbitant pressure, for all time raised pulse and subsequently cardiovascular malady.

For investigating the beneficial outcomes of living in calm zones on human wellbeing, an aggregate of 823 individuals was picked for different territories and named "calm country," "calm town," "uproarious rustic," "loud town," "calm town" for New Zealand. The findings revealed that personal satisfaction improved with a decrease in clamor levels and wellbeing related to personal satisfaction was bound to calm provincial territories (Shepherd, et al. 2013). A study was conducted to track the amount of noise and dust on various roads in Lahore by choosing three different paths, i.e., Yadgar Chowk, Qurtaba chowk, and Yateem khana chowk. The noise level at Qurtba chowk was 1.38 times higher than the WHO recommendation, and at Yadgar chowk was 1.45 times higher than the WHO recommendation. While at Yateem Khana Chowk, it was 1.19 times more than the guidelines permitted. The study highlighted the absence of a 11 Role of TV in creating awareness regarding noise pollution, a daily noise level control system in the city exacerbated by the death of some noise mitigation device, that has been exposing the public to a high level of noise pollution (Naseem, 2012).

METHODOLOGY

The methodology employed in this study adheres to a systematic framework aimed at rigorously investigating the role of TV electronic media in raising awareness about noise pollution among university students in Lahore. Central to the methodology is the formulation of hypotheses, with H1 positing that TV electronic media is creating awareness regarding noise pollution among university students of Lahore, while H0 suggests the opposite. This hypothesis guides the research process, shaping the selection of variables, which includes the independent variable of the role of electronic media and the dependent variable of creating awareness of noise pollution. The survey methodology emerges as the primary approach for data collection, offering a means to gauge perspectives and response patterns among the target population. In this case, the population comprises university students in Lahore, drawn from three prominent universities. A purposive sampling method was employed to select a subset of the population, resulting in a sample size of 150 students affected by noise pollution and exposed to TV electronic media. Data collection was facilitated through the distribution of a questionnaire containing 15 closed-ended questions relevant to the study objectives. American Psychological Association ethical guidelines of research were firmly followed.

FINDINGS

Present study was focused on investigation of impact of electronic media on awareness about noise pollution among university students in Lahore. Findings of the study are as follows.

Table 1.
Percentages and responses of TV viewership, hours and preferred content of TV watching

	Responses (%)			
Do you watch TV?	Always (27.33%)	Often (27.33%)	Sometimes (32.67%)	Rarely (12.67%)
How many hours do you watch TV?	1-2 hours (78%)	2-3 hours (10.67%)	> 3 hours (10.67%)	-----
What do you watch on TV?	News (41.33%)	Talk shows (9.33%)	Other (48.33%)	----

Table 1 shows that majority of the respondents are TV viewers though their viewership frequency vary. It also shows that majority of respondents watch TV for 1-2 hours. Rest of the respondents watch TV for 2 -3 hours or more than 3 hours. Almost half of the respondents were watching TV News and Talk shows.

Table 2.
Percentages of responses regarding news coverage of noise pollution on TV

	Responses (%)		
News about noise pollution on TV	Yes (41.33%)	No (49.33%)	Don't know (9.33%)
Public service message on tv	Yes (0 %)	No (89.33%)	Don't know (10.67%)
Is electronic media highlighting noise pollution issue?	Yes (3%)	No (80.67%)	To some extent (16 %)
Is electronic media providing awareness about precautionary measures against noise pollution?	Yes (0 %)	No (84 %)	Don't know (14 %)

Table 2 shows that almost half of the respondents have never seen any TV content on noise pollution either in form of news or public service message and majority of them considers that TV is not highlighting issue of noise pollution efficiently. It is evident from the fact that majority of the respondents have never collected any piece of information regarding precautionary measures against noise pollution from TV.

Table 3.
Percentages and responses of perception of respondents about noise pollution

	Responses (%)			
Noise pollution is a big threat to environment	Yes (76%)	To some extent (18.67%)	No (5 %)	-----
When do you experience noise pollution	Morning (12 %)	Afternoon (40 %)	Night (13 %)	Whole day (34 %)
Does noise pollution affect your learning?	Always (50.67 %)	Often (20.67%)	Sometimes (26%)	Never (2.66%)

Table 3 shows that majority of respondents perceived that noise pollution is a big threat to the environment. Around one third of the respondents were experiencing noise pollution whole day and other one third experience it mostly in afternoons. Half of the respondents also believed that noise pollution affects their learning.

Table 4.
Percentages of responses to sources of noise pollution in Lahore

Source of pollution	%
Vehicles	75.33
Industrial Machinery	12.00
Animals (dogs etc)	3.33
Events	4.00
House hold appliances	2.00
Construction	0.67
Other	2.67

Table 4 shows that majority of respondents considered that vehicles are the major source of noise pollution in Lahore, 12% said industrial machinery, 4% said events, and 3% said animals, while 2% said that house hold appliances, 1 % said construction and 2% said that other things are the major source of noise pollution in Lahore.

Table 5.
Percentages of responses about type of noise experienced by respondents.

Type of noise pollution	Responses (%)					
Which type of indoor pollution affects you most?	Generators 33 %	Home appliances 28%	Air coolers 12 %	Tv 19 %	Family conflicts 5 %	Other 4 %
Which type of outdoor pollution affects you most?	Traffic 72 %	Loud speakers 8 %	Construction 9.34 %	Neighborhood 1.33%	Functions 1.33%	Industrial machinery 8 %

Table 5 shows that majority of respondents were affected by generator (33%), and different home appliances (28%). Interestingly, other minor sources of indoor noise pollutions are identified as family conflicts. TV was also found as a source of noise pollution. Table also shows that 72% of respondents said that in outdoor noise pollution they were affected mostly from traffic, 8% affected from loudspeakers, while 9% affected from commercial construction, 1% affected from neighborhood and 1.33% respondents affected from functions.

Table 6.
Percentages of responses regarding health effects caused by noise pollution

	Health effects (%)					
Health related effects of noise pollution	Hearing 38 %	Disturbed Sleep 20 %	Psychological issues 9 %	Hypertension 8 %	Headaches 20 %	Others 4 %

Table 6 shows that according to 38% respondents noise pollution mostly effects hearing, 20% thought that it disturbs their sleep, 20% said it cause headache, 9% believed that psychological disorder could be caused by it, while 8% gave option of hypertension and 4% respondents claimed that due to noise pollution they had to face other health issues.

DISCUSSION

This study is focused on the role of electronic media in creating awareness regarding noise pollution. This study's first concern is to investigate the role of TV electronic media in creating awareness regarding noise pollution among university students. The second concern of this study is to explore the perception of university students regarding noise pollution. This section analyzed the data relating to all the matters mentioned above of the survey. The findings show that most respondents watched TV to get information, and they watch mostly news or talk shows for awareness. Table 2 shows that 49% of respondents had not watched any news related to noise pollution on TV, table 2 also shows that majority of the respondents consider that TV channels are not broadcasting any public service messages for noise pollution awareness whereas literature suggests that public service messages are an efficient source for spreading awareness through TV (Durkin & Smith, 2013). As evident from the findings that TV News and Talk shows are neglecting important issue of noise pollution so there is lack of social responsibility in media organizations for educating general public about potential environmental and health threats. Findings of the study show that respondents considered noise pollution as a significant threat to the environment, yet our TV media is ignoring the severity of the problem.

One important finding shows that 80% of respondents report that media do not educate general public about adopting precautionary measures to minimize the impact of noise pollution. Considering the gravity of situation, it is social responsibility of the media to create awareness among people about noise pollution issue and safety measures. Repeated telecast of such PMS can help in adopting healthy behaviors and behavior modifications. Findings of previous studies also endorsed this fact that PSM lead to behavior change (Martin, 2024). Findings reveal that respondents experience both indoor and outdoor pollution as table 5 indicates. Indoor noise pollution sources include generators, home appliances, TV volume, family conflicts and air coolers. On the other hand, they experience outdoor noise pollution from traffic, loud speakers, neighborhood, events/functions, construction and industrial machinery. These shows that humans are facing too much noise pollution. Being experiencing noise for long hours can be harmful for us (Shambo et al, 2015). Noise pollution causes not only environmental damage, but it also has adverse effects on human health.

Noise pollution is one of the biggest causes of discomfort, hypertension, psychological stress, and nuisance in developing countries. With the population growth and development in urban areas, the different vehicular traffic and its noise has also increased. As majority of the respondents reported that they face noise pollution in the afternoon. It is the time when they are coming back from their schools, colleges or universities and they face traffic issues including noise pollution. Responding to impact of noise pollution half of the respondents considered that noise pollution affects their learning. 38% of respondents believed that noise pollution has a negative effect on their hearing senses. Headaches and disturbed sleep were also reported by respondents. The noise pollution is a serious and potential threat for humans and environment. To mitigate the impact of noise pollution serious steps should be taken like awareness about health related risks for humans should be provided through public service messages and

news/talk shows. This will help to improve quality of living by adopting precautionary measures and ensuring strategies to reduce noise in surroundings.

LIMITATIONS AND RECOMMENDATIONS

This study was restricted to city of Lahore and sample included only university students. These were the limitations of this study. The research study suggests several recommendations based on its findings. Firstly, TV electronic media should engage students by organizing infotainment shows to raise awareness about noise pollution and other environmental issues. These shows can educate audience about its causes, impacts, and mitigation strategies. Additionally, the government and policy makers should take an active role in organizing campaigns involving youth to promote awareness about noise pollution. The findings suggest incorporating noise pollution into university curricula through case studies on media effectiveness and environmental impact. Additionally, study's findings emphasize the need of factoring noise pollution into urban planning and development procedures. Green buffers, soundproofing techniques, and zoning laws might all be used to support the creation of calmer urban areas. The findings recommend that media stakeholders should prioritize environmental problems in their programs in order to foster awareness, educate audiences and promote sustainable urban development. Future research should focus on media coverage of noise pollution, use case studies and qualitative research to explore understudied areas of noise pollution research in Pakistan. Through these recommendations, stakeholders can contribute to a better understanding of noise pollution and its mitigation.

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