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## **Students' Corner**

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### **Letter to the Editor**

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### **Noise pollution: an unwarranted menace for urban Pakistan**

Madam, I am writing on one of the most annoying problems faced by the residents of Pakistan's largest cities, which is noise pollution. It is an unwanted product of our modern civilization and is becoming a menace to our society. Noise is an unpleasant, undesired and irritating sound produced by a vibrating matter.

Noise has always been with us, but never so evident, violent and pervasive as it is today. Therefore it is essential to know its disastrous effects on the human body. According to WHO,<sup>1</sup> noise above 70db is considered as painful. The most grievous damage caused by noise is hearing loss, which is preventable but irreversible.<sup>2</sup> Hearing impairment is an increase in the threshold of hearing. Most commonly, noise-induced hearing loss involves injury to inner ear structures, particularly stereocilia, the hair cells, and therefore known as a sensorineural hearing loss. Stereocilia can be temporarily damaged by noise above 90db and permanent damage occurs with longer exposure. Also, American Academy of Paediatrics published a statement on effects of noise on the foetus.<sup>3</sup> According to which excessive noise exposure during foetal life may result in high-frequency hearing loss in newborns. It can also cause tinnitus i.e. a ringing, roaring, buzzing, or clicking in the ears.

Sleep disturbance is a major effect of environmental noise. Healthy sleep is a prerequisite for good physiological and mental functioning. It may cause increased blood pressure, changes in heart rate and increased fatigue which may also lead to a devastating stress related conditions,<sup>1</sup> noise above 80db may increase aggressive behaviour.

Noise levels in Pakistan have reached critical levels

with average noise values of 76.5db being recorded in Karachi, 72.5 in Islamabad and 86 in Peshawar.<sup>4</sup> While these values may not have reached astronomical levels, but if left unchecked it could cause widespread hearing defects, insomnia, indigestion, heart burn, ulcers, hypertension and psychological disorders. According to WHO criteria, noise levels in residential area should be 45db, 55db in commercial areas and 65 in industrial areas.<sup>5</sup> Note that these are the maximum levels and yet in our major cities, the value is at least 10-20db above WHO criteria.

The above mentioned facts highlight the deleterious effects noise pollution poses on population at large. There is a dire need for legislation to control increasing noise pollution inside the city. Pressure horns and loudspeakers should be completely banned. Industrial area, airports and highways should be located outside the city limits. For public awareness television, radio, internet and newspapers should run campaigns for wide publicity.

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