

LIFESTYLE OF YOUTH DETERIORATES HEARING

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Abstract: *Noise pollution is the same dangerous like contamination by gases. It is one of the modern problems of mankind. Today we are exposed too much higher decibels than in the past. Several decades are a very short period of adaptation to hearing such noise. Of course, hearing apparatus can adapt to a certain level, but it is very individual. Someone can withstand high load sound without visible damage to the organism, another feels the negative impact of noise much sooner. No noise in our neighborhood should not be underestimated.*

Key words: *noise, lifestyle of young people, hearing-impaired, prevention*

Introduction

Health of today's young people is influenced by many different internal and external factors. Cause of most diseases can found in change of the relationship between the human organism and the environment in which human lives.

Lifestyle of Youth

Lifestyle has on our health large impact. The literature indicates the percentage from 50 to 60 %. Health is our greatest asset. However, young people often forget this by listening to loud favorite music. Unfortunately, noise is the price we pay for a high degree of civilization and industrialization. Effects of listening to loud music are typically seen, but only with a lag of several years. Combining the sound and power has long been culturally conditioned and is still reproduced in manufacturing: in children's books, things are characterized by their expression of noise and toy manufacturers come with toys, which important feature is loud sounds.

MP3 Players

Headphones on ears on the street today have almost every second person. Listening to music while traveling to work or to school is especially popular among teenagers. Our hearing does not get used to high levels of noise. Excessive decibels destroy

sensory cells in the inner ear. The longer effect has the noise on the ear, the more nerve cell die. This loss is permanent and irreversible. Human might even end up completely deaf. If hearing is damaged, it cannot be “fix”.

Noisy events

Noise discos cause acute problems to human hearing. Loud music can even damage the brain. On events with loud music there is a sudden deterioration of hearing, especially if one is near the sound speakers. Danger is particularly in the sudden unexpected sound impact. Then the noise flies to the cochlea in the inner ear, where it tears the membrane with hair cells. After one hour spent at the disco our hearing needs to regenerate for several hours. After a long stay on the noisy events young people should rest in a quiet environment to recover the hearing apparatus.

Learning

Intensity noise does not have to be high to stress students by learning. Sometimes, only a low persistent hum can induce stress or annoyance. When learning in a noisy environment degradation of performance, impact on the physiological function arises and decreases focus in dealing with complex tasks. The noise affects the collective social behavior of humans so that it releases the aggressive features of human nature. In a noisy environment degrades the cooperation in the working group and reduces the willingness of mutual assistance, reporting and margin of tolerance for others.

Sleep

There is a lot of evidence that sleep is biologically necessary and sleep disruption is associated with many health problems. With increasing noise levels in the environment, grows the number of people who do not have optimum conditions for their sleep. Sleep is an essential element of life. It is considered as an active recovery process ongoing in the nervous system. Its deficiency is one of the reasons of premature exhaustion of the nerve cells. If it is a permanent phenomenon, the organism is rapidly aging, decreasing resistance to disease and premature death may occur. During sleep, our body reacts more sensitive to noise than during the day. Even at low noise level stress response occurs, the so-called. Secretion of stress hormones, leading to a risk of gastrointestinal and cardiovascular disease.

Noise exposure also induces secondary effects, i.e. delayed effects. These are impacts that will occur the day after overnight exposure at a time when the exposed person is awake. It's a lack of sleep, fatigue, headache, depressive mood, reduced performance. The questionnaire study showed that people living in areas with high night-time noise take more sedatives and sleeping pills. Increased noise at night results in difficulty falling asleep, restless sleep and early awakening.

Materials and methods

In studies conducted from January 2009 to March 2009 with an Internet questionnaire, we contacted 224 residents of Kosice. Age range of respondents was from 12 to 75 years. We allocated 108 adolescents aged 12-22 years from our sample. Age limits for the period of adolescence are not well defined, but we consider the lower limit of age approximately 12 years and the upper limit from 20 to 22 years. We tried to determine the health status of respondents in relation to noise, such as addressing the perceived noise in their neighborhood, leisure and lifestyle they have. The results we obtained are graphically illustrated.

Results of the study

Listening to MP3 player

Anyone who listens to loud music with headphones more than five hours a week, risks damage of his hearing. Hearing damage arise with higher probability by those people who listen to music for more than five years. Among Europeans, such “listeners” are estimated from 2.5 to 10 million, and mostly children and young people. According to an estimation people listening to personal audio daily is from 50 to 100 million. The study results showed (Fig. 1) that 65 adolescents listen to the MP3 player, 26 adolescents occasionally and 17 adolescents does not listen to.

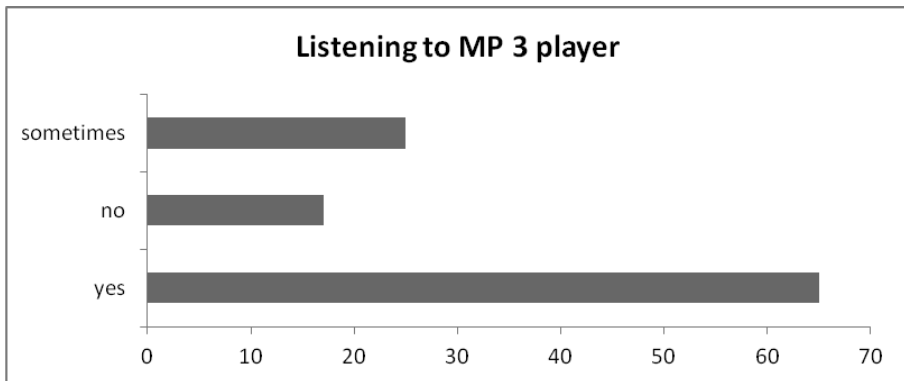


Fig. 1 Listening to MP3 player.

Listening to MP3 player divided by education

The research results showed that 40 % adolescents listen to MP3 player have primary education, 28 % are secondary school students and 24 % are university students. Data are presented in Tab. 1 and shown graphically on Fig. 2.

Tab.1 Listening to MP3 player split by education.

Do you listen to MP3 player?	Secondary w/o GCSE	Secondary w/ GCSE	High school student	University student	University education	Basic education
Yes	0	5	18	16	0	26
no	1	0	5	6	0	5
sometimes	1	1	4	9	2	9

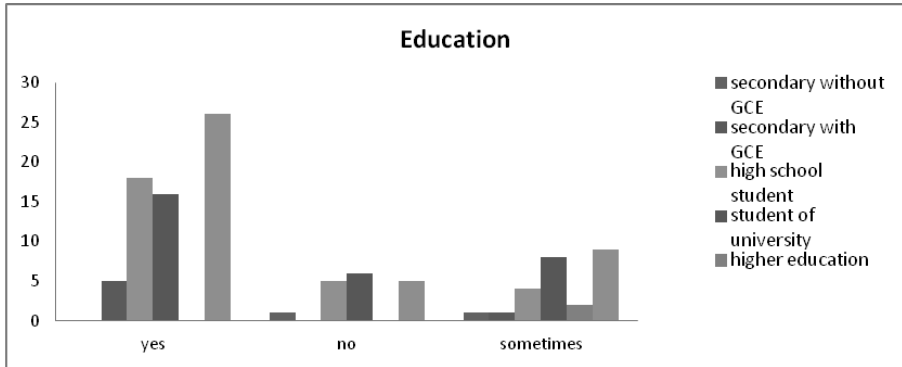


Fig. 2 Listening to MP3 Player by education.

Headache

Headaches can have many causes - increased noise at home or outside, lack of sleep due to noise, the noise irritability, inability to relax and rest for the noise and the like. As shown from the study 10 respondents suffers from a headache, 58 respondents occasionally and 40 does not (Fig. 3).

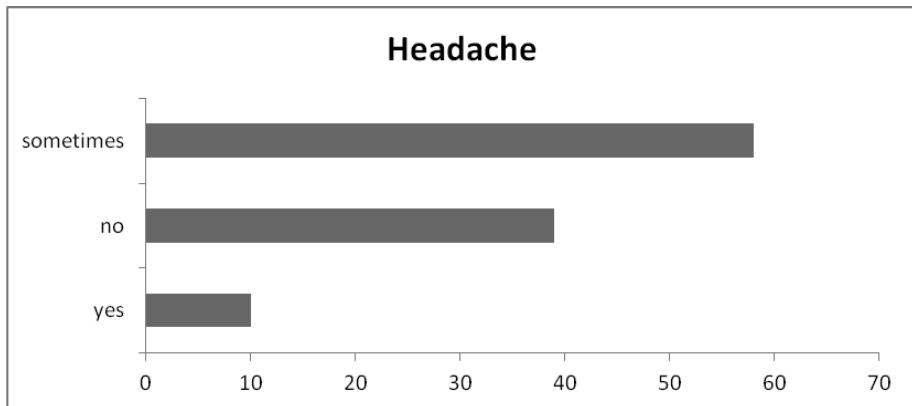


Fig. 3 Responses to the question: "Do do you suffer from headaches?"

Noisy events attendace

Young people like to attend various music events and don't care about to the noise level. Attending clubs and concerts are damaging their ears. They can handle up to 120 decibels, the noise is similar to the aircraft. Often the decibels are higher at these events. The respondents' answers on Fig.4 showed that noisy events regularly visits 30 adolescents, 54 adolescents sometimes and 24 do not.

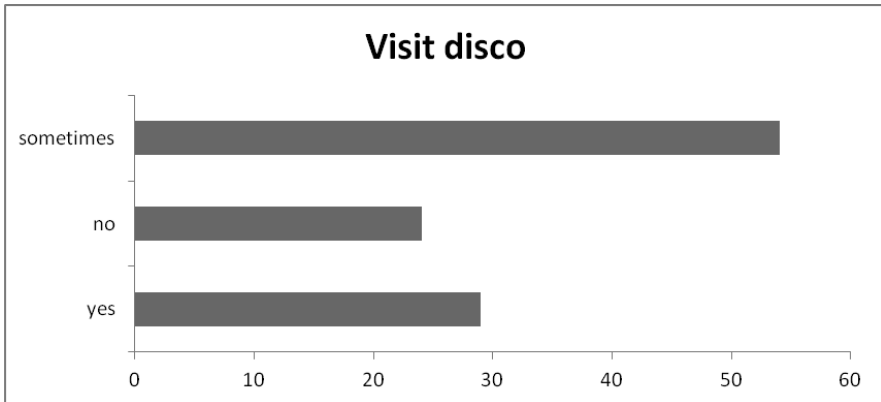


Fig. 4 Noisy events attendance.

The survey results on whether adolescents attend noisy events by education, are listed in Tab. 2 and shown graphically on Fig. 4.

Tab. 2 Noisy events attendace by education.

Do you attend noisy events?	Secondary w/o GCSE	Secondary w/ GCSE	High school student	University student	University education	Basic education
Yes	0	2	9	10	0	9
Not	0	1	7	8	1	7
occasionally	2	3	11	13	1	24

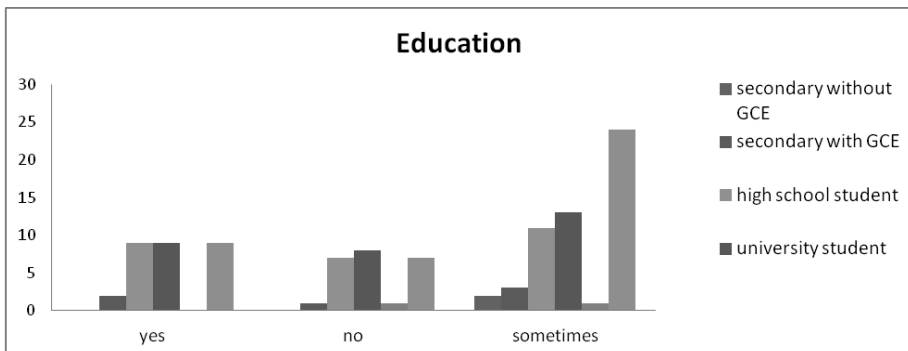


Fig. 5 Visits noisy events by education.

Bad or harmed sleep

The survey showed that poor respectively impaired sleep have 14 respondents, 29 respondents have poor sleep occasionally, and 65 respondents don't have bad sleep (Fig. 6).

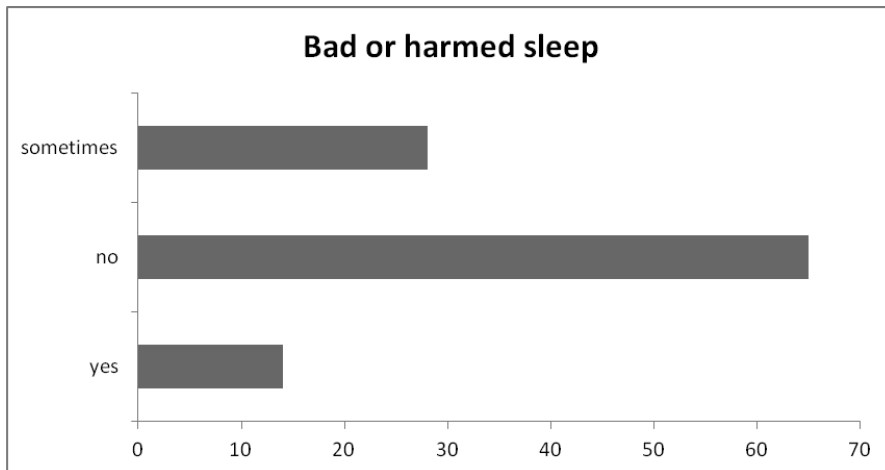


Fig. 6 Responses to the question: "Do you have a bad / harmed sleep?"

Discussion

Hearing impairment is most common in those people who listen to music from MP3 players for more than five years. Among Europeans, we estimate the number of such people is from 2.5 to 10 million, and mostly children and young people. According to estimates, private players use daily from 50 to 100 million people. Hearings of people from EU destroy mainly MP3 players, which in recent years the Union has sold from 124 to 165 million. Listening to loud music from the player at least five hours per week exceeds the noise standards, which are for exposed employees in the noisiest factories. The fact that the user puts in ear a small headphone which covers ear and increases noise intensity. These values are by longer and louder listening to MP 3 players harmful.

Not only music, but also any other sound, that volume exceeds 85 db, and human is longer exposed to it, can cause hearing loss. Loud sound can also cause mood changes, influence the behavior of the listener and can act as stress or a motivating factor in not only positive but also in a negative sense. Damage to hearing is not actual only for people who listen to MP3 players.

Danger is also listening to music from a loud radio. Especially in loud environments. In noisy environments, listeners tend to add sound. There is a difference when listening to players such as when travelling by a train or relaxing in nature. The difference is also whether a man is on the disco, or a member or conductor of the great musical orchestra, or listen to radio only as a background hum in the car or at work in heavy traffic. Both ways of listening to music can be for hearing body in the long period dangerous.

Conclusion

Noise pollution is the same dangerous like contamination by gases. It is one of the modern problems of mankind. Today we are exposed too much higher decibels than in the past. Several decades are a very short period of adaptation to hearing such noise. Of course, hearing apparatus can adapt to a certain level, but it is very individual. Someone can withstand high load sound without visible damage to the organism, another feels the negative impact of noise much sooner. No noise in our neighborhood should not be underestimated.

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ŽIVOTNÝ ŠTÝL MLÁDEŽE ZHORŠUJE SLUCH

Abstrakt: Znečistenie hlukom je také isté nebezpečné ako napr. zamorenie výfukovými plynmi. Je to jeden z novodobých problémov ľudstva. V dnešnej dobe sme vystavení podstatne vyšším decibelom ako v minulosti. Niekoľko desiatok rokov je veľmi krátka doba na adaptáciu sluchu voči takémuto hluku. Samozrejme, sluchový orgán sa po istú hranicu vie prispôbiť, ale je to individuálne. Niektorí vydržia veľkú zvukovú záťaž bez viditeľného poškodenia organizmu, iní pociťujú negatívny vplyv hluku na svojom tele oveľa skôr. Preto by sa nemal podceňovať žiaden hluk v našom okolí.

Kľúčová slova: hluk, životný štýl mládeže, poruchy sluchu, prevence