Tinnitus and its effect on the quality of life in adolescents

(scientific paper)

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Abstract: *The paper focuses on aspects of quality of life in adolescents suffering from tinnitus and its broad-based impact on life. The research was conducted in an interview with six participants, both female and male in adolescence. The interview provided a deeper look at the subjective perception of the quality of life of people with tinnitus on a physical, mental, social and societal level. The main finding was that adolescents with tinnitus had a change in their quality of life, not only in a negative but also in a positive direction, which is evident only with the passage of time when an individual with tinnitus learns to live. Another finding was that increased perception of tinnitus occurs after physical exhaustion, fatigue, and stress. The most significant changes in adolescents were in the field of cultural activities and the disruption of family, partnership and friendships. The research also discusses new forms of therapy that can lead to coping with the disease. The main goal of the research was to identify, analyze and describe the effect of tinnitus on the quality of life of individuals in adolescence. This goal has been met.*

Keywords: *quality of life, tinnitus, adolescent age, problem in various areas, possibilities of new methods*

1 Introduction

Human hearing is exposed to many arduous sound attacks during life, which can have very adverse effects on the hearing itself. The defense mechanism during such attacks, such as excessive noise after attending concerts, discos or excessive noise from the train whistling, etc., is the rustling, humming, buzzing and rumbling in person's ears. Few people can imagine that these sounds would not have to disappear and one can hear them for a lifetime, completely continuously. The biggest problem

is that these sounds are perceived when one falls asleep or is silent around him. This sound becomes unbearable and begins to interfere with one's daily life in all areas. Not only the mental but also the physical side of life is endangered, which can result in serious disorders and problems. The technical term tinnitus auris itself is not very well known to the general public, but if you state that it is specifically an ear murmur (noise, whistling), you will find that a large part of the human population has encountered this problem today. This phenomenon is becoming an increasingly common phenomenon, which can become an unpleasant companion throughout life and make it uncomfortable or completely disrupt its overall quality. (Fabóvá, 2015)

1. Theoretical background

The term tinnitus is derived from the Latin word 'tinnire', which means 'piercing voices', or from the word 'tinnio', – 'tinkle'. The term hides a number of auditory perceptions that do not have a sound source from the external environment. These auditory sensations can be diverse in nature, manifested in deep tones and sound like growl, hum, rustle, knock, beat, buzz or high tones and resemble whistling or ringing. (Zemek, 2011)

Tinnitus most often occurs between the ages of 40 and 70, with approximately the same prevalence in men and women, and is rarely present in children (Crummer, Hassan, 2004). We do not know the exact national statistics, but clinical studies show that almost every second person over the age of 60–65 suffers from various forms of subjective tinnitus. Based on this finding, tinnitus becomes the third most common symptom, after headaches and dizziness, which leads the patient to a doctor. (Hahn, 2000)

Due to the modern age, when we are surrounded by constant stress and noise, tinnitus no longer occurs only in the elderly, but more and more adolescents and children are increasing in ENT clinics. We believe that the number of these patients will increase during this age group, because adolescents are among the main users of modern technology (use of mp3 players with loud music, mobile phones, handsfree, wifi), they live an increasingly unhealthy lifestyle and their recklessness thus becoming adepts that tinnitus can easily affect. (Fabóvá, 2015)

A big research has been done in the United Kingdom. This study found an increasing incidence of tinnitus over time, with an emphasis on an ever-increasing health burden. Knowledge of patient characteristics, lifestyle factors and selected comorbidities contributes to a better understanding of tinnitus risk factors. The research was conducted on a large group of 109,783 adults diagnosed with tinnitus between 2000 and 2016, which provided an overall age-standardized incidence rate of 25.0 new cases of tinnitus per 10,000 inhabitants. Throughout the study, there

was a steady increase in the incidence of tinnitus. Approximately 80% of tinnitus cases were diagnosed aged 40 years or older. The highest incidence was observed in individuals aged 60–69 years (41.2 per 10,000 population, 95% CI: 40.7–41.7). Smokers and alcoholics had a lower risk of being diagnosed with tinnitus compared with non-smokers and non-drinkers. The incidence of tinnitus has been strongly associated with the recent diagnosis of several otological and vestibular disorders, as well as head and neck disorders. (Stohler N. A., 2019)

Statistics from clinical studies show that 15–17% of the world's population suffers from tinnitus, and for 5% of them, tinnitus represents a significant reduction in quality of life. As it affects the suffering person all day, it does not allow them to concentrate on work, it prevents relaxation in the process of sleep, which is disrupted mainly in the phase of falling asleep. This results in increased fatigue and irritability, which can lead to disruption of interpersonal relationships, anxiety, depression and thus lead to a significant change in the overall image of the personality. Due to the sleep deficit and lack of rest caused by constant tinnitus, the patient may suffer not only mentally but also physically, until it may eventually lead them to perform a suicidal act. (Hahn, 2000).

Tinnitus is not a disease, but a symptom, meaning that it is the main manifestation of some diseases, so it is seldom an isolated symptom. It is usually accompanied by other disorders. In Kulka (2007, p. 50) mentions the following accompanying disorders:

- Hypacusis: 80% of patients have hearing loss. The patient is stressed that the necessary acoustic information is overlaid by unwanted noise.
- Hyperacusis, phonophobia: Up to 70% of patients suffer from this additional symptomatic. This is an increased sensitivity to sounds. The sounds of everyday life are unpleasant and in extreme cases the patient is afraid of any sounds.
- Vertigo: Many patients suffer from imbalances, which make them very insecure. They are constantly confronted with the feeling that something is wrong.
- Musculoskeletal disorders: Stiff neck muscles, vertebrogenic problems or, for example, bruxism (intense gnashing and chattering of teeth) may have their own stressful causes, but tinnitus is often accompanied.
- Depression, anxiety: These conditions are initially reactive in nature, but over time they may become chronic and require psychiatric and psychotherapeutic care.

We know the impact of tinnitus on humans, but we do not know the etiology of the onset. There are many causes that cause tinnitus, but its mechanism is often not detected at all. Common causes include simple sebaceous plugs, eardrum damage, inflammation (external and moderate otitis), Eustachian tube obstruction, Meniere's disease, otosclerosis, drugs, drugs, ear tumors, not only acoustic traumas, some CNS diseases, cardiovascular diseases etc. (Vokurka, 2009)

Authors Tiler, Coelho, Noble (2006) claim that there are patients who reject, control or accept their tinnitus. Their research suggested that in some cases there may be a common genetic cause of tinnitus and depression. A potential candidate is the serotonin transporter gene SLC6A4.[1]

By not proving a clear cause of tinnitus, it is only a very difficult or even impossible treatment to completely eliminate this problem. In the course of 2006, research was conducted to determine the success of tinnitus treatment. Its results confirm that tinnitus is incurable in most cases (Maite, 2007). The treatment of tinnitus "is one of the biggest problems in audiology" (Novák, 2003, p. 294), because it is not easy to determine the root cause of the murmur, according to which the subsequent therapy takes place. We also cannot treat tinnitus as a specific disease because "tinnitus is not a disease in itself, tinnitus is a symptom, as is headache, for example. The symptom cannot be treated. This means that tinnitus cannot be "cured". What can be cured is the cause of the symptom, ie the disease that is its cause. One can also learn to manage the symptom "(Thora, Goebel 2006, p. 70). There is one of the new therapies, the cornerstone of which is the behavioral-cognitive habituation of tinnitus, which is implemented in the form of the so-called Tinnitus Retrainig Therapy (TRT), which brings both positives and negatives. It is not a cure. Eliminate tinnitus, however, goes by inducing a habit of tinnitus-induced reactions and its perception. It allows patients to control their tinnitus, live a normal life and participate in daily activities. According to the article (Jastreboff; Jastreboff, 2000), TRT is a highly effective therapy in people with tinnitus and can be used to treat all types of patients. It does not require frequent visits and does not interfere with hearing and there are no negative side effects. Approximately 20% of patients achieved a change in their tinnitus perception by focusing their absolute attention on it and losing it completely. The only negative aspect of TRT is that the completion protocol must focus on the individual needs and profile of the patient, which in turn requires significant time involvement of the treatment staff, who must be specially trained. In addition, development requires specific plastic changes in the nervous system (leading to accustoming to tinnitus). The inurement lasts approximately 18 to 24 months, as estimated from retrospective patient observations.

2 Methodology of research survey

The study focuses on the quality of life of adolescents who suffer from tinnitus. Due to the fact that there is relatively little research dealing with the issue of tinnitus in

[1] One of the most important genes controlling serotonin function (5-hydroxytryptamine, 5-HT) is the serotonin transporter gene. The serotonin transporter (5-HTT) ensures the uptake of serotonin from the synaptic cleft into the neuron. Caspi A et al. (2003)

this age period, we decided to gain knowledge to approach the topic and increase awareness of the issue.

The main goal is to identify, analyze and describe the effect of tinnitus on the quality of life of adolescents.

The main goal is elaborated into the sub-goals of assistance described below, where we try:
- to find out how tinnitus affects the quality of life of adolescents.
- to detect changes in the lives of adolescents after the onset of tinnitus.
- to determine the form of compensation for improving the quality of life in individuals with tinnitus in adolescence.

To achieve the sub-objectives described above, the following **research questions** are identified:
- How does tinnitus affect the quality of life of adolescents?
- What changes have occurred in the lives of adolescents after the onset of tinnitus?
- In what form do adolescents compensate for their tinnitus?

2.1 Methodological framework of research

Qualitative research was conducted on the basis of semi-structured interviews with adolescents aged 18 to 21 who suffer from tinnitus. Qualitative research was chosen because of the nature of the research, which focuses on the subjective perception of living with tinnitus. The method of intentional (purposeful) selection was chosen for the selection of the research sample.

Sampling criteria:
- Age from 18–21 years
- Gender man-woman
- Tinnitus for at least 1 year
- Etiology unknown

Based on the established criteria, a total of 6 adolescents participated in the research.

An overview of basic data about adolescents who participated in an individual interview: In order not to violate the privacy of the respondents, their identity was hidden under the initials of their names.
Girl V – 21 years old. Tinnitus for two years
Girl K – 19 years old. Tinnitus for one year
Girl L – 18 years old. Tinnitus for one year

Boy M – 19 years old. Tinnitus for about a year and a half
Boy L – 20 years old. Tinnitus for two years
Boy D – 18 years old. Tinnitus for two years

2.2 Results

The respondents suffered from tinnitus from one to two years. They did not know the exact etiology of its origin, but mentioned the possibilities that could cause it. These included, for example, otitis media, a strong compressed air wave acting directly on the ear, an exploding firecracker near the individual, frequent dancing at deafening speakers at discos with parties until the early hours of the morning. In most of the respondents, stressful circumstances also took place before the onset of tinnitus, which, together with the above-mentioned influences, could have been the triggering factors for the onset of tinnitus. They mentioned, for example, a divorce of parents, the death of a grandmother and great-grandmother in one year, a break-up with a long-term girlfriend. Each individual described their tinnitus in different words. Some had trouble describing it in the beginning, so I asked the supplementary question: "what does its sound remind you of"? After this clarification, the interviewees spoke and mentioned, for example, the burbling of a waterfall, the sound of a pressure cooker, the murmur of an old television, the sound of a whisper when listening to a seashell, the sound of a wind blowing. Although each individual described the sounds in their own words, the results were either high tones in the form of whistling or low tones in the form of drone. Respondents also stated that it is not always just one sound, but that sometimes there are more sounds. These sounds, or rather noises, as the interviewees call them, change their intensity and, in certain situations, may worsen. Respondents agreed that they perceive tinnitus the most when there is silence, especially before they fall asleep, or at school when there is silence and they have to concentrate. As a result, tinnitus impairs their concentration and they have trouble falling asleep. But silence does not worsen tinnitus. What makes the tinnitus worse was mentioned, for example, fatigue (most often), physical exhaustion, stress and loud noises (whistling of bicycles on the train platform, loud concerts, discos). When we asked the respondents what feelings tinnitus evoked in them, each individual named different feelings, but as a result, their subjective perceptions of feelings changed over the duration of tinnitus. At first, they perceived tinnitus worse and their feelings were mostly negative. A feeling of fear and anxiety prevailed in them. Individuals focus more on it and "fight" against it. Interviewee L: "I have feelings of fear that the sound will never go away and that I have a serious illness". Whereas in individuals in whom tinnitus lasts for more than a year, a change in feelings and overall view has been seen. We can say that they took their tinnitus easy. Respondent M: "At the moment I don't mind, but when it started and I didn't hear

one ear at the same time, I only heard the noise, so it bothered me a lot and it made me feel anxious." Interviewee V: "My feeling of tinnitus is constantly changing. I had negative feelings especially at the beginning, when I focused a lot on tinnitus and basically only perceived the sound. I think that since the tinnitus started, so I have gradually started to come to terms with it, what else can I do (smile)".

How does tinnitus affect the quality of life of adolescents?

This research question was answered by questionnaires that were created based on areas of quality of life according to WHO. These are, for example, the questions: does tinnitus prevent individuals from doing daily activities? What problems are associated with tinnitus? Do individuals feel changes in physical health (loss of energy, fatigue, increased need for rest), whether tinnitus has affected relationships in the family, with a partner, or with friends? Due to the answers of the interviewed, tinntius disrupts the daily lives of adolescents, for example at school or at work, where it reduces their concentration. It also disrupts the sleep process. All respondents said they had trouble falling asleep. Psychiatric problems such as fatigue, depression, anxiety, fear, psychosomatic difficulties and moodiness are also associated with tinnitus.

Adolescents stated that, due to the mentioned problems, they initially sought more medical care, specifically that they most often sought first aid from their general practitioner and then professional help from an ENT specialist, neurologist and psychologist. Later, when some respondents thought that medical care was not efficient, they stopped visiting doctors, did not go for regular check-ups, and stopped taking medication. Respondent D: "I don't see a doctor anymore, on the contrary I have to go for check-ups, but I don't go, I haven't been there for over a year. I don't think it makes sense."

The remaining part of the respondents had the opposite problem and they are looking for more medical care, not only in ENT clinics, but also in other alternative treatment experts, and they are trying to get rid of tinnitus. Some respondents also reported that after the onset of tinnitus, they began to develop other health problems over time, and despite the various examinations they undergo, all of their results were negative. According to doctors, they are completely healthy, but they do not feel that way. Thus, we are talking about a psychosomatic illness, which can gradually manifest itself in individuals with tinnitus and thus affect their physical and mental side. Interviewed V: "I visit doctors more, but I don't just mean ENT within tinnitus. I don't know if it's related to it, but I started to experience so-called digestive-related psychosomatic illnesses. The results of the examination are all right, but I still have problems and no one knows what is wrong with me."

Given the above, we can say that tinnitus is involved in impairing the quality of life in the physical dimension. A similar disruption occurs in the dimension of social relations, when individuals with tinnitus stated that after the onset of tinnitus,

they started to reduce the attendance of various cultural events, where there was a higher intensity of sound (concerts, discos), which aslo affects their friendships. They also avoid the places where more people talk at once. All respondents stated that after the onset of tinnitus they had a problem with speech comprehension in noise, where more people spoke at once (pubs, restaurants, busy public places), or there was higher sound intensity, or more sounds at once (cinemas, concerts) and started the visit these places less, which has an impact on the social dimension of quality of life. Like the two previous dimensions, tinnitus also disrupts the mental health and environmental dimensions. In the mental health dimension, adolescents with tinnitus are affected in most areas. Due to the fact that tinnitus is often accompanied by mental difficulties, it affects self-concept, negative and positive feelings, thinking, learning and concentration. In the environmental dimension, as mentioned above, the respondents stated that they avoid places with higher sound intensity, which can affect not only the social area, but also the area of getting to know and gaining new information, knowledge and experiences.

What changes occurred in the lives of adolescents after the onset of tinnitus?

We can say that tinnitus brought a change in the lives of all those interviewed. If we were to divide the changes into positive and negative, negative changes were mentioned more often. Negative responses prevailed in individuals who had tinnitus for a shorter period of time. Among the negative changes that tinnitus has brought, the main problems are falling asleep, relaxing and feeling tired. Some respondents claimed changes in their social lives. They reduced their cultural life, which disrupts their social ties with friends. They tend to be grumpy more often, and this disrupts family relationships. They avoid noisy places. They experience communication disturbances when they are in a noisy environment. In summary, individuals state that they are no longer as active as before. On the other hand, the respondents were able to see certain positives in the change in their lives. They stated that they slowed down and began to realize what health was, some of them ate better and started exercising. Overall, they now value their body more, look after it and perceive themselves more. Some directly stated that they had "calmed down". Respondent "K" to the question: "Did tinnitus bring you any positives?" She answers: "Yes, it did, I slowed down, I started practicing yoga and eating healthier. Overall, it seems to me that my way of life has changed and I think in a good way."

In what form do adolescents compensate for their tinnitus?

The first compensation that the interviewers encountered was medical care, in which the most frequent drug treatment was chosen, which was aimed at dilating the arteries and blood vessels of the inner ear, to improve its blood circulation. Some individuals also reported taking antidepressants from the onset of tinnitus. Treatments such as

hyperbaric chamber, infusion therapy, psychologist-led psychotherapy and alternative therapies such as acupuncture, homeopathy, phytotherapy and kinesiology were also mentioned. In most cases, the respondents said that in their opinion, drug treatment was unsuccessful. The acute form of tinnitus was positively affected by the hyperbaric chamber in combination with infusions or psychotherapy, but not in terms of reducing tinnitus, but its acceptance. The respondents also tied to help themselves. They choose various strategies to try to deal with their tinnitus problem. They mainly use "comping strategies".[2] It is a reaction (the way) an individual tries to manage their problem. The interviewees named the following strategies to manage tinnitus: effective strategies: the need for different activities to distract attention, movement (walking the dog and into countryside), better lifestyle, acceptance of tinnitus, active movement (yoga exercises), relaxation exercises (autogenous training). Passive strategies: masking tinnitus with external stimuli (music, television), escape (avoiding silence, noisy environment, stressful situations, people, etc.). Maladaptive: high concentration on tinnitus, thinking about it, constantly searching for information about it on the Internet, in the literature, frequent visits to doctors with the hope of removing tinnitus, taking antidepressants and sleeping pills. The desire for tinnitus to disappear, introversion with subsequent social isolation. We cannot say that the comping strategies are still the same. An individual's management of tinnitus changes over time, and with it, comping strategies do too. The above describes the variety of comping strategies that individuals choose to fight with tinnitus. However, one comping strategy was chosen by all respondents – masking tinnitus with music. So we can say that it is a masking of silence with music, which serves to prevent the individual from concentrating so much on their tinnitus. This strategy was chosen by all individuals and is used throughout the duration of tinnitus. Tinnitus management is influenced not only by the comping strategies that the individual chooses, but also by its duration. Respondents who had tinnitus for more than a year stated that they had become familiar with tinnitus and that they dealt with it. In contrast, individuals who suffer from tinnitus for a short period of time do not control it and "fight" against it. Respondent L "I haven't dealt with it yet and I don't know if I ever will. I wish it was gone."

3 Discussion

In all respondents, tinnitus changes over time. Respondents agreed that silence does not worsen the intensity of tinnitus, it only attracts more attention, so they focus more on it. Korres et al. (2010 in Veldová, 2014) states that there is no background

[2] According to Budda and Pugh (1996), Veldová (2014) divides tinnitus comping strategies into three categories: effective strategies, passive strategies and maladaptive strategies.

sound in silence that would reduce the sound contrast between tinnitus and a quiet environment. Therefore, there is no reduction in the perception of tinnitus. Increased perception of tinnitus occurs in all respondents after physical exhaustion, when individuals are tired and perceive tinnitus more under stress. Each person has different feelings about tinnitus. Everyone agreed, however, that negative feelings prevailed at the beginning of tinnitus. Later, adaptation to tinnitus occurs and positive feelings appear. All respondents agreed that tinnitus impairs the quality of life in all its dimensions, especially in the first year. After that, reconciliation with tinnitus takes place and the quality of life is constantly affected in some areas, but it is no longer as disturbed as in the beginning.

In these 75% of patients, the habituation time usually ranges from 6 to 12 months. (Toupet et al., 2003). Changes in a person's life are broad-spectrum and are reflected in all areas of life, as our respondents prove. The most significant changes in adolescents occurred in the field of cultural activities. Individuals reported that they had calmed down and were no longer as active with regard to social life as before the onset of tinnitus. They reduce the attendance of loud concerts, discos, some even less walk among the people. Overall, their way of life has changed. They now respect their body, look after it and perceive themselves more. The data indicate that approximately one-quarter of people suffering from tinnitus feel severely affected by it, and the remaining three-quarters get used to it (Crummer, Hassan, 2004). One of the confirmatory studies (Erlandsson, Hallberg, 2000) is a study of the prevalence of tinnitus (0.5–1% of respondents) that states that tinnitus seriously affects their ability to lead a normal life. In this survey, the quality of life and its relationship with psychological, psychosomatic and audiological tinnitus-related factors were studied in a sample of 122 patients. Six of the thirteen variables included in the model proved to be significant regressors. These were impaired concentration, depression, perceived negative attitudes, hypersensitivity to sounds, average hearing level (best ear) and duration of tinnitus (the shorter the duration of tinnitus, the more negative the impact on quality of life). The three most important predictors were directly related to perceived mental distress. An unexpected finding was that tinnitus fluctuations, vertigo, headaches or perceived social support did not appear to be significant regressors.

These results confirm our conclusions. In the area of physical dimension, it was a feeling of fatigue, which was increased among the respondents. It is a disturbance in the area of sleep that breaks down tinnitus and thus there is no overall rest of the body. In terms of the dimension of mental health, these were mental disorders, which began to occur together with tinnitus among the respondents. The most common were anxiety and depression. The question is whether it is different for men or women. A study by Bashir Ahmed et al. (2017) was designed to examine the alleviating role of gender between tinnitus perception and psychological stress in men and women with tinnitus. The participant consisted of 110 patients with tinnitus

(men n = 70, women n = 40). Data were collected from various hospitals in Pakistan through a complete otorhinolaryngological examination. Two scales, Depression, Anxiety and Stress Scale (DASS) and Tinnitus Handicap Inventory (THI), were used to measure the perception of tinnitus, stress, anxiety and depression in patients with tinnitus. The results of this study revealed that gender acted as a moderator between the perception of tinnitus, depression, anxiety and stress. The results showed that gender was a positively significant predictor of anxiety ($\beta = .45$, $p < 0.01$), depression ($\beta = 1.17$, $p < 0.01$) in patients with tinnitus. The results suggest that women are more prone to anxiety than men. Depression is also more perceived by female patients with tinnitus. We did not study this problem in our research.

In the area of the social dimension, family, partnership and friendships are disrupted. Due to the higher irritability of adolescents, negative thinking, self-esteem, avoiding the company of people, limiting cultural events (concerts, discos), social ties with peers and the family are disrupted.

The impact on the quality of life of an individual with tinnitus is not negligible, and precisely because of this, people suffering from tinnitus seek help and treatment. The first compensation that all respondents encountered was drug treatment, which did not have a positive effect on any of them. Basically, it is nothing special that drugs do not work. This is also confirmed by Holcát (2006), who states that since in most cases the cause of the murmur is not recognized, it cannot be causally treated. The effective and important treatment reported by respondents was psychotherapy, which did not help to treat tinnitus, but to get used to it and accept it as part of one's person. The importance of psychotherapy in the process of murmur treatment is also mentioned in Holcát (2006), according to which psychotherapy is a very good method, with the help of which the patient does not get rid of the murmurs, but at least manages to cope and gets used to the murmurs. Of all the strategies that patients most often named to manage tinnitus, the best was the help of music to camouflage it. Music has thus become a part of their daily lives. Other therapies are available abroad, such as infusion therapy and vasodilator therapy. There are currently many authors[3] working on the new TRT treatment mentioned above, which could help people with tinnitus in our conditions as well.

4 Conclusion

Due to the increasing noise, which is increasingly affecting humans, tinnitus is beginning to spread like a sea wave to the entire population. Most of the human population has experienced short-term whistling or tinnitus without hearing loss. It may take less than five minutes (eg after exposure to excessive noise) and disappear. In

[3] Hesse, Schaaf, Grosbois, Pellec, Toupet, Maite etc.

contrast, pathological tinnitus lasts longer than five minutes, occurs more than once a week, and is perceived continuously throughout the day. If tinnitus becomes an annoying problem for an individual, the perception of their own quality of life may be impaired. The quality of life of an individual with tinnitus at the beginning of its onset can be impaired in all its dimensions. This can result in difficulty falling asleep and sleeping in general, increased fatigue, irritability, decreased attention, difficult concentration, mental problems (depression, anxiety) associated with emotional lability. Due to the list of tinnitus-related problems, desperate individuals begin to seek medical help and try to get rid of the unbearable companion that accompanies them throughout the day. If tinnitus is not associated with another condition (such as hearing loss), most patients visit the doctor with delay, and this greatly reduces the effectiveness of its treatment. The intervention is also influenced by the origin of it and the subsequent diagnosis. Treatment difficulties occur in the subjective type of tinnitus, which is most common among patients. Tinnitus is becoming "one of the biggest problems in audiology" (Novák, 2003, p. 294). Tinnitus is a problem for which there is currently no universal way or cure to help patients get rid of it completely. Everyone is an individual and deals with their problems differently. Trying not to succumb to tinnitus, trying to eliminate it, and if that does not work, it is important to learn to accept it and get used to it so that it does not bother them unnecessarily in their thoughts. The general aim of the research was to comprehensively capture the issue of tinnitus in adolescence and to raise awareness of the subjective perception of quality of life in individuals with tinnitus in this age period. The main goal was to identify and analyze the effect of tinnitus on the quality of life of adolescents. Given the above-mentioned main goal, the research was carried out in a qualitative form that allows to capture the subjective view of individuals on the issue. The research method became a semi-structured interview, which allowed flexibility in asking supplementary questions. The results of the research showed that tinnitus has a great impact on the quality of life of all respondents and in the initial phase disrupts it to a greater extent. In adolescents, due to the complexity of the self-seeking period, this disruption is exacerbated. As a result, however, it turned out that the interviewed individuals got used to their tinnitus during the year. Thus, we can say that the interviewed adolescents have a higher possible degree of adaptation. After a year, adolescents not only perceived the negatives of tinnitus, but were able to name the positives. Tinnitus no longer compromised their quality of life to the same extent as at the beginning.

Living with tinnitus, especially at the beginning, is not easy at all. Every individual longs for a moment of silence. Therefore, one of the main recommendations will be to prevent tinnitus with the help of prevention, such as noise control, to try to protect one's hearing as much as possible, to avoid stressful stimuli that also affect tinnitus. When tinnitus affects the person and all treatment fails, it is important to deal with

it, try to accept it and come to terms with it. Rest and sleep are important and are greatly affected by the noise due to the silence that tinnitus enhances. Therefore, it is appropriate to use, for example, the so-called masking (relaxing music in headphones, etc.), which overlaps the silence. If classical medicine does not work, not to be afraid to try alternative or new methods. We can name many recommendations for fighting tinnitus, but to minimize the impact of tinnitus on quality of life, it is important that each individual finds his or her own way of overcoming tinnitus.

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