THE QUALITY OF LIFE OF YOUTH WITH VARIED SCALE HEARING IMPAIRMENT AS COMPARED WITH THE YOUTH HEARING PROPERLY – COMPARISON STUDY

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Abstract

The aim of present study is comparing the quality of life of youth suffering from hearing impairment and hearing properly. The research was conducted in ten subscales: physical health, mental health, moods and emotions, self-perception, independence, family life and relations with parents, peers and social support, school environment, the level of social acceptance (bullying), financial resources. In the first subscale health self-assessment regarding physical activity, efficiency and energy was conducted. In the second and third subscales positive and negative emotions were studied. In the fourth subscale self-satisfaction was analyzed. The fifth subscale was about making decisions. The sixth subscale was designed to estimate relations with parents. The seventh subscale was aimed at looking into social support and making friends. In the eighth subscale school satisfaction was measured. In social acceptance the experience of bullying was investigated. The last subscale regarded estimation of family’s financial resources, possibility of having life similar to peer’s life and limitations caused by financial shortcomings.

The applied scientific method is diagnostic survey and technique – a questionnaire. The tool is Polish version of KIDSCREEN questionnaire – 52, which is used to estimate the quality of life of children and youth within the range of age 8 – 18. There are 52 questions in 10 subscales. 100 persons ranging from 16 – 18 years old were studied. 50 of the respondents were hearing properly and 50 had varied degrees of hearing impairments: mild, moderate, significant and very high. The proportion of sex was equal: 50 boys and 50 girls. Statistical analysis was conducted with use of Spearman’s rank correlation coefficient, with p≤ 0,050.

The results of study: the highest life satisfaction of youth with hearing deficits was declared in subscales of physical health, mental health and social functioning though the differences in comparison with hearing well respondents appeared statistically insignificant. Only in subscale “financial resources” there was a statistically significant difference. In this area the youth with hearing deficits declared lower life satisfaction than their auditory healthy counterparts. Due to financial reasons they feel limitations in the access to assets and they perceive their lifestyle as less attractive than their healthy peers’. Although the differences in the three above mentioned subscales are not statistically significant, the study shows that the youth with hearing deficits estimates quality of their life worse than their hearing properly counterparts in every single aspect. Sex variable delivered information that boys estimated their quality of life higher than girls.

Conclusions: slight differences in declared quality of life can be associated with transitional stage of life. Process of becoming an adult affects similarly both well hearing and badly hearing youth. Since Newborn Hearing Screening Program was implemented the rehabilitation of hearing can be introduced as early as possible and hearing loss does not have to be the determinant of quality of life. The most important support for the youth with hearing deficits is financial support as well as peer support.

Keywords: quality of life, subjective quality of life, youth with hearing deficits.

1 INTRODUCTION

The quality of life has been the subject of interest for over a half of century. However still there is no agreement concerning the definition of this notion. Its interdisciplinary character is the cause of perceiving it differently by discrete branches of knowledge. Thus, for example, the quality of life can be analyzed from the perspective of relations between a person and the society with its chances and difficulties. Carol Ferrans and Marjorie Powers define the quality of life as the state of well-being, its determinant being subjective content from the most important areas of life [1]. Glenda Meeberg [2] claims that the quality of life means feeling content from his/her life with the emphasis on provision of needs as well as satisfying conditions of life. Alex Michalos defines the quality of life similar way:

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“general happiness and content from life as a whole” [3]. According to him, while estimating the quality of life, the discrepancies among the needs (desired state) and the level of satisfaction (current state) should be taken into consideration. Similarly, Angus Campbell, a researcher who is considered a precursor of the studies on the quality of life points to the needs of an individual person. He enumerates among others such needs requiring satisfaction in specific areas as: marriage, health, family life, place of life, free time [4]. Simultaneously, Olof Hörnquist asserts that the quality of life equals satisfying needs in the following areas: physical, social, psychological, financial and structural (prioritizing needs depending on time) [5]. Both J.C. Flanagan [6] and Andrzej Kaleta [7] emphasize that first of all those needs which are the most important should be listed and then estimated to what extent they are satisfied. Romuald Kolman [8] perceives the quality of life in more neutral way. From biological perspective it is physical functionality of human organism and in economic perspective it is satisfaction of the fundamental material and spiritual needs. Apart from sociology, psychology, pedagogics also medicine engaged in the discussion about the quality of life. The cause of taking up the considerations about this notion was formulating the definition of health by World Health Organization in 1948. The quality of life is defined here as not only the lack of illness but also as the well-being in physical, social and psychical dimension [9]. According to World Health Organization the quality is life equals: “person’s perception of his/her position in life in the context of culture and value system in which he/she lives as well as in connection with his/her aims, expectancies and standards” [10]. WHO emphasizes that the quality of life is multidimensional and pretty subjective notion and embraces such areas as: physical, psychical, referring to independence, referring to social relations as well as referring to social background and spiritual area [11].

One of the most popular models of the quality of life was developed by David Felce and Jonathan Perry [12]. They equal the quality of life with well-being and they distinguish five the most substantial areas, in which a person assesses him/herself regarding quality of life. These are four areas of well-being, namely physical, financial, social, emotional as well as productiveness. In this conception the authors refer to the quality of life in two dimensions: objective and subjective. The objective dimension consists of such criteria as: physical health, fitness, feeling of safety, financial efficiency, social well-being (that is good family and social relations), emotional well-being (that is mental health, mood, self-esteem), development and being active (that is active participation in life, access to education, overall possibilities) and having free choice of making own decisions. The subjective dimension embraces person’s own estimation of his/her contentment of all enumerated areas as well as prioritizing them according to value system. The definition of the quality of life formulated by World Health Organization gave foundations to the analysis of the quality of life among children. This is how the WHO model of the quality of life within children appeared. In this model the dimensions of the quality of life put by WHO as well as variables of developmental stages associated with the children’s well-being and the overall development of children are taken into consideration. According to this model there are three objective factors: personal (e.g. parents’ occupations, amount of siblings), concerning health conditions (illnesses and their kinds) and social-environmental (e.g. extra classes, housing conditions) which influence the quality of life. Subjective assessment is made personally by a child. This is done within the range of seven areas: physical, psychical, spiritual, referring to social relations, referring to the feeling of independence, societal, and referring to children’s rights.

For studies, the most important is the European model of the quality of life KIDSCREEN which is health dependent. Theoretical findings and the establishment of the research tool were the result of the research project, in which thirteen European countries participated (together with Poland). KIDSCREEN is designed to conduct studies among children, youth (both in good and bad health) and their parents, simultaneously creating models for specific disorders. The following definition of the quality of life was adopted: “psychological construct, describing physical, mental, social, psychological and functional aspects of well-being and functioning from the patient’s point of view” [13]. There are ten areas of the quality of life in this model: physical well-being, psychical well-being, self-image, moods and emotions, the feeling of independence, school life, the relations with parents, social support, financial resources, social acceptance [14].

According to economists, determinants of the quality of life are found among objective factors such as financial resources. Sociologists point to establishing correlations between quality of life and social relations. For pedagogues the most important indicator is the process of upbringing, for the psychologists – the quality of growing up and in medicine - good health conditions. The determinants of the quality of life can be also found in varied groups of people chosen according to specific features [15]. A strong correlation between income exceeding national average with own house and the level of the quality of life was found [16]. In a group of teenagers at the age 11-18 housing conditions determine the assessment of the quality of life. The same refers to family’s financial situation. Those
adolescents, who assessed their financial situation as “very good” or “good” found themselves considerably higher on the scale of their overall quality of life than those who indicated their family finances below average or just average. No correlation was found among the quality of respondents’ lives and their parents’ employment [17]. Therefore, financial situation is generally regarded as one of the main, objective determinants of the quality of life. It was also proved that the subjective, high level of well-being perceived by an individual person is more intensely dependent on the fact itself of living in a rich country than on person’s income [18]. Research shows that the place of living is also the determinant of the quality of life. Higher education students who come from villages are less content from their lives than the higher education students coming from urban areas [19].

Other demographic variables are also considered significant in the study on the quality of life. One of them is age. The studies conducted by Central Statistical Office within people over 16 show that the younger group of respondents the larger number of them declare content of life [20]. M. Oleś, who conducted studies among teenagers aged 11-18 proved that the feeling of the quality of life lowers together with the rising age of the adolescents [21]. Similar conclusion was drawn by J. Mazur and collaborators on the basis of the study conducted among children aged 8-18. The age group 8-11 achieved the highest overall quality of life and a group 15-18 – the lowest [22].

The analysis of the literature shows that the researchers search correlation among the quality of life and sex. In studies conducted among youth by A. Frankowska [23] girls achieved only a little higher indicator of the quality of life than boys, and the differences were not statistically significant. Other studies also show that sex variable does not show any differences in the assessment of the quality of life among younger children aged 8-11 of both sexes. Together with getting older such differences concerning “the perception of self” appear on both sides [24]. Also, the level of social support and the existence of social network are considered significant as factors influencing quality of life. It is worth noting that the support is linked with the situation in which a person finds him/herself. Among students an important correlation between social support and the content of life was noticed. Additionally, it was proved that better well-being was marked by students having friends who rarely felt lonely. Also, self-assessment of health condition is considered an indicator of subjective quality of life and it appeared to be the strongest variable. The better assessment of one’s health, the higher overall quality of life (including such aspects as psychical well-being and having sense of life) [25].

Hearing impairment in itself does not entail to limitation of contacts. Limitation of contacts can result from worse language skills or lack of common way of communication [26]. Results of the study show that relationships with peers depend also on speaking impairments. It has been noticed that correctly speaking children are hesitant to display acceptance or positive emotions towards children with speech impairments. This aspect is much dependent on the intensity of symptoms – the lighter degree of hearing impairment the better relationships among healthy and disabled peers. It is surely associated with the fact that the essence of social relationships is picked up later by children with impaired hearing organ in comparison to correctly developing children [27]. According to studies conducted by Aneta Jegier and Magdalena Kosowska among 630 learners, including 30 who suffered from hearing impairment in integrative teaching type of schools point to the fact that almost half of children with hearing impairment were rejected by their peers [28]. Other studies among children with hearing impairment, who attend public schools and communicate via verbal speech show that the level of social integration is considerably lowered and such children themselves more willingly make friends with children with similar to their own disability, namely with hearing impairment. Studies also show that people with disabilities assess their quality of life lower than able-bodied persons. In the studies conducted by Anna Czyż [29] it appeared that persons with hearing implant achieved higher level of the quality of life than persons with a hearing aid. Early age of placing a hearing implant influences earlier development of spoken language. The improvement of interpersonal relationships and more meaningful participation in a range of areas of life constitute a condition influencing the increase of children’s quality of life.

2 METHODOLOGY

The main objective of the present study is the recognition and comparison of the quality of life of youth with hearing impairment contrasted with correctly hearing counterparts.

Detailed objectives are the following:

1. The assessment of the quality of life of youth with hearing deficits in the area of physical health, mental health, social functioning and financial conditions.
Identifying, which variables out from the following: age, sex and the degree of hearing impairment determine the quality of life of children with hearing disability.

The comparison of assessment of the quality of life of youth with hearing deficit with the assessment of the quality of life delivered by youth hearing properly.

The main research problem is expressed by the following question: What is the assessment of the quality of life perceived by youth with hearing deficit compared with the youth without any hearing deficits and which factors are determinant for the results?

In the present study the dependent variable equals youth’s quality of life and hearing impairment while degree of hearing loss are independent variables. There are also mediating variables meaning such which influence the remaining variables, these are age and sex. The research method is diagnostic poll KIDSCREEN-52 questionnaire, which assesses the quality of life within children and youth aged 8-18 with the leading health criteria. The questionnaire consists of 52 questions in 10 subscales: physical heath, physical well-being, moods and emotions, self-perception, feeling of independence, relations with parents and family life, peers and social support, school life, the level of social acceptance (bullying), financial resources. In the first subscale the self-assessment of health within the ranges of physical activity, physical efficiency and energy was studied. In the second and the third subscales positive and negative emotions were investigated. The subscale of self-perception deals with self-content. The subscale of independence measures making decisions. Within the subscale family and family life the relations with parents are measured. Within the range of subscale named peers and social support this very support and making friends are studied. In the subscale school life the contentment from school is evaluated. In social acceptance subscale the construct of experience of harassment namely bullying by peers is investigated. The subscale named financial resources embraces the assessment of family financial capacities and the possibility of living life similar to peers’ life as well as enumerating the limitations caused by financial shortcomings. The respondents were asked to keep in the mind the perspective of last week perception while answering questions. The two utilized scales referred to intensity (no, a little, medium, much, a lot) and to frequency (never, rarely, quite often, often, always). Only the first question concerning physical health required using different pattern (excellent, very good, good, mediocre, bad). The majority of questions are set according to positive arrangement, meaning that the answers are arranged from negative to positive. The respondents filled in the questionnaires and next they were collected and coded according to the instruction issued by the authors of the KIDSCREEN-52 screening instrument. The statistical analysis, referring to the research problem, were conducted in program IBM SPSS Statistics 20.

100 persons aged 16-18 took part in the study. 50 of them were hearing correctly and the remaining 50 had hearing impairment. The gender distribution was equal and amounted to 50 boys and 50 girls. There were 33 sixteen-year-olds, 33 seventeen-year-olds and 34 eighteen-year-olds. Within correctly hearing youth boys constituted 48%, and – correspondingly – girls 52%. The most numerous age group was eighteen-year-olds (36% of answerers), sixteen- and seventeen-year-olds amounted correspondingly to 34% and 30%. Respondents with hearing impairments were divided by hearing impairment: mild (20-40 dB), moderate (41-70 dB), considerable (71-90 dB) and profound (over 90 dB). The last subgroup appeared to be the largest. To achieve the main objective and the detailed ones the results were processed in statistical analysis. Statistical analysis was conducted according to Spearman’s rank correlation coefficient, with p≤0.05.

3 RESULTS

3.1 The assessment of the quality of life of youth with the hearing deficit within the range of physical health, mental health, social functioning and financial conditions

The highest possible average result to be achieved in all above areas and overall quality of life amounts to 4. It can be noticed that overall quality of life, physical well-being, psychical well-being and social well-being are assessed higher than half of the highest possible to be achieved result. Youth with hearing impairment achieved overall result of quality of life amounting to 2,25 which corresponds 56,3% of the possible highest result. The highest result was achieved in the area referring to social functioning (2,31), next results were slightly lower and were placed in the subscale “psychical well-being” (2,27) and “physical well-being” (2,14). Living conditions were ranked the lowest (1,75) which amounts to 43% of possible highest result. The results of some of the inquiries were converted into
100-point scale, which also gives the picture of percentage value of maximal assessment, making it possible to compare average results achieved in above mentioned kinds of the research. It turns out that in some parts of the research the results of children and youth with hearing impairment in different domains as well as overall quality of life vary within the limits 60-70. Polish studies conducted among children and youth with hearing deficit point to the fact that the result of overall average quality of life amounts to 66.9. Similarly, in other analyses the results in different domains as well as overall result varied within the range 63-78 [30]. The results of the present study in the aspect of self-assessment of the quality of life are slightly lower than in other Polish and foreign academic investigations.

Similar correlation in the assessment of areas of quality of life made by youth occurred in Spanish investigations which were conducted with the help of shortened version of KIDSCREEN questionnaire. In this case youth with hearing impairment assessed the highest psychological functioning and the area titled “autonomy and parents”, which – in full version of KIDSCREEN – is included in social functioning. Slightly lower, with third place, physical well-being was assessed [31].

In academic literature the difficulties with undertaking social contacts, with relationships with peers and with emotional development among children and youth with hearing impairments are frequently mentioned [32]. On the basis of investigations conducted by the present author it emerges that youth with hearing impairment assessed the highest such areas of quality of life where these problems can also occur. Admittedly, average results achieved in areas of the questionnaire are not considerably different, but it can be claimed – and this finding is confirmed by other academic studies – that, among youth with hearing impairment there is a tendency to be relatively the most content from social functioning. This lies in the area of independence, interpersonal relations, social support. Economic conditions were assessed the lowest.

3.2 Variables (age, sex, degree of hearing impairment) determining the quality of life of youth with hearing disability

The analysis of scientific data allows to claim that there is no statistically vital correlation (r = -0.191, p>0.05) between age and average result of the quality of life of youth with hearing impairment. Then it was checked if sex variable influenced quality of life of the respondents. Because of the fact that sex variable is dichotomous, average results of overall quality of life among boys and girls with hearing impairment with the use of test t-Student were compared. Here statistically vital correlation (p = 0.035) was found in the difference of average overall quality of life among boys and girls of hearing improperly respondents. Boys achieved substantially higher results than girls. Next the variable of the degree of hearing impairment was analyzed. The analysis conducted with the use of Spearman's rank correlation coefficient proved that there is no statistically vital correlation between the degree of hearing impairment and average rate of quality of life (r=0.193; p>0.05). This result can be regarded confirmed by studies conducted by Hintermair among learners with hearing disability with the degree up to 70 dB. Other investigations among learners of Austrian classes 1-9 also found no correlation between the degree of hearing impairment and the quality of life. In spite of the fact that in the present study no correlation between the degree of hearing impairment and the quality of life was found, average qualities of life for all the groups with varied degrees of hearing impairment were calculated. Next, the present author decided to check if there are any statistically vital differences among these groups. The highest average result of quality of life was achieved in the group of the profound hearing impairment. Lower average results were noted in the groups of mild and moderate hearing impairments and the lowest was found in the group of considerable hearing impairment. Statistically vital differences can only be noticed among the groups of profound and considerable hearing impairments. In the former the result is substantially higher than in the latter. Among the remaining groups with varied hearing impairments no statistically vital difference in average result was noted.

3.3 Comparison of the assessment of the quality of life of youth with hearing impairment and the youth without any hearing problems

Average indicator of quality of life in the group of properly hearing youth amounted to 2.39 and in the group with hearing disability it amounted to 2.25. With the help of t-Student test, it was examined if average results in both groups are substantially different. On the basis of data it is seen that the hearing properly assess their overall quality of life better than the group with hearing deficits, however the difference is not statistically vital (t(98)=1.239; p>0.05). Youth with hearing deficits assessed lower all studied areas of quality of life. The differences among average results achieved by hearing well and not properly hearing youth did not appear statistically vital in areas of physical well-being, psychical
well-being and social functioning. Only in the area of “economic conditions” a statistically vital difference is found ($t(98)=0,001; p>0,05$). Youth with hearing impairment achieved substantially lower result than hearing correctly youth. In spite of the fact that differences in three areas are not statistically significant it can be noticed that youth with hearing impairment assesses their quality of life lower than their hearing well counterparts in all studied areas.

4 CONCLUSIONS

On the basis of the present study it emerges that youth with hearing impairment assess their overall quality of life slightly lower than it is assessed in other Polish and foreign studies. In the present study the youth with hearing impairment declared the lowest content from their financial condition. It is the area which is often omitted in studies concerning people with hearing impairment. Researchers should also deal with this area while conducting studies among people with hearing impairment. The areas of social functioning and psychical well-being were assessed the highest. The assessment of physical functioning was slightly lower than these two areas. As it was mentioned above, social and emotional functioning are conditioned by several factors, among others by the way of communicating, peers' and family members’ (both healthy and with hearing impairment) support. The present study shows that age does not influence the quality of life. The group of youth aged 16-18 assess the quality of life similarly regardless of age. The degree of hearing impairment is not a determinant of the assessment of the quality of life, either. It means that youth with hearing impairment perceives their life similarly to their healthy counterparts and the degree of hearing impairment is not important. Thus, theoretically more serious difficulties in functioning of persons with profound hearing impairment are not reflected in their lower life satisfaction. The analysis indicates that this group achieved the highest result in the assessment of the quality of life but vitally it differs only in case of persons with considerable hearing loss. The only examined variable, which differentiates the assessment of the quality of life is sex. It emerged that boys assessed their quality of life higher than girls. This is a vital indicator serving as a signal to start equaling life satisfaction rate of girls to make it comparable to corresponding boys’ rate. The respondents’ age is difficult in itself due to biological transformations, thus the present problems and difficulties should be eliminated in order not to multiply problems in future development. Parents and teachers should assist children in overcoming these difficulties. Slight differences in perception of life among hearing well respondents and those suffering from hearing loss can be associated with transformation phase of their bodies and mind. This period influences similarly both healthy and disabled youth. Within the range of four examined areas of the study on the quality of life, a tendency of lower assessing in all and every respect can be observed by the youth with hearing loss. Still, these differences are not substantial, not counting the domain “financial conditions”. In this area youth with hearing impairment is demonstrating lower content of life. Due to financial reasons they feel limited in access to some of goods as well as in lifestyle which they would like to have similar to their peers’. As it was mentioned earlier, families with disabled members estimate their financial situation worse than families with healthy family members. They spend more money on rehabilitation or medical equipment. Families with members suffering from hearing loss have to cope with high costs such as e.g. hearing aid or cochlear implant. It is certain that the most important support for such families would be financial support. It is worth paying attention to this fact while planning support for such persons and their families. Summing up, teenagers with hearing impairments function similarly to their able-bodied peers. Presently, rapid technological development can also serve people with hearing impairment. Newborn Hearing Screening enables introducing of rehabilitation of hearing as soon as possible. Hearing loss does not have to be an indicator of lower life satisfaction any more.

REFERENCES

