



## Quality of Life of Families of Children with Speech Disorders

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### Abstract

**Background:** Under the influence of numerous life factors, speech constantly undergoes changes. Parents of children with speech and language disorders have a lower quality of life compared to the parents of children without. The study examined different domains of the quality of life of families with and without speech disorders.

**Methods:** A cross-sectional study was conducted in Serbia, in 2024, on a sample of 206 preschool children aged 5-7 years and their parents/guardians. As a research instrument, in addition to the General Questionnaire on sociodemographic characteristics of children and parents respondents /guardians, the Family Quality of Life Survey (FQOL) was used to assess the family's quality of life.

**Results:** Articulation disorder was detected in 78.2% of children. Difference between the two groups of parents was found in terms of place of residence, work status, education levels, and children's age. From the five domains of family quality of life, significance was found in the domain of family interaction regarding the support, support related to disability, and family safety. Regarding the physical/material well-being domain, the significance was found for dental care and parenting domains. No differences were found in the domain of emotional well-being.

**Conclusion:** The importance of the study reflects in the possibility of applying the obtained research results for the creation of educational programs that will encourage positive attitudes of parents and children about speech therapy interventions, which can influence successful rehabilitation of speech disorders and improve family quality of life.

**Keywords:** Speech disorder; Children; Family quality of life survey; Serbia



## Introduction

Speech disorder is a common developmental diagnosis in preschool age. It can have immediate and long-term effects on children's lives. The literature suggests that children with speech disorders are at increased risk for poorer outcomes in social, emotional, behavioral, and academic functioning. This data is worrying, especially if you take into account the fact that speech disorders affect children's adaptation to the social environment, but also the loss of interest in school (1-3).

Speech Sound Disorders is a generic term used to describe a range of difficulties producing speech sounds in children. Thus, pathological articulation is a deviation in building voices, both on the visual, acoustic and kinesthetic level. According to some data, about 4-5% of children are affected by such disorders (4).

If voice correction is not started on time, children may first experience frustration due to misunderstanding from the environment. When they start the school, degradation of school skills in reading and writing is showed. In addition, these children are under the influence of high stress because they are often bullied by their peers. Quite often, the consequences are timidity, insecurities of the child, inadequate social adaptation, etc. Therefore, correction of the articulation of the child should start before enrolling into the school. It is considered that the period of preschool age is particularly important because children can then acquire unoriginal habits, which can lead to significant morphological changes of parts of the face and thus influence the improper acquisition of articulatory habits (5-7).

However, it is important, when we investigate difficulties in children, to explore also parental perceptions since they can make important contributions understanding of the impact of a condition on a child and inform interventions. Parents of children with speech disorders have a worse quality of life than that of parents of healthy children of the same age (8).

We examined the different domains of the quality of life of families of children with speech disorders in relation to the quality of life of families of children with normal speech status. There is a lack of such research in our environment, as well as a lack of recommendations on how to improve interventions and improve the quality of life of families of children with speech disorders. The findings would be of direct benefit to clinicians, researchers, and policy makers as they expand understanding of speech difficulties in children and their impact on quality of life. In addition, the results should enable the creation of intervention strategies for early recognition of speech disorders and timely and adequate treatment of these disorders.

## Methods

The research was conducted as a cross-sectional study. The population on which the research was conducted were children of preschool age (from 5 to 7 years of age) and their parents/guardians. The research was conducted in the children's health care service of the Health center "Petrovac on Mlava", Serbia, in 2024. In progress performing regular preventive examinations of children as part of regular speech therapy testing, the pronunciation of each child's voice was assessed individually. Immediately after the Triage Articulation Test (TAT) was conducted, an insight into whether or not the child has an articulation disorder was obtained. After this assessment, the speech therapist gave advice on whether the child needed speech therapy treatment and asked for consent to fill out questionnaires for the purpose of the study.

Parents were included in the study after signing the Informed Consent form with full information. Ethical research standards are in line with international (Declaration of Helsinki) and specific legislation of the Republic of Serbia. (Ethics approval: No 01-515/2024).

The criteria for including children in the study were age from 5 to 7 years of age, preserved hearing, good intelligence, good articulation, functional articulation disorder (functional dyslalia), orthodontic dyslalia and comorbidity of articulation disorder with another speech disorder.

The criteria for excluding children in the study were existence of hearing loss or deafness, biological (neurodevelopmental) disorders: intellectual disability, autism, ADHD, developmental dysphasia, cerebral paralysis, various syndromes, organic dyslalia resulting from injury or disease of the CNS or cranial nerves that participate in the articulation process, and language disorders. The respondents were divided into two groups. The first group consisted of parents/guardians of preschool children who were diagnosed with a speech disorder (articulation disorder) by a speech therapist using the Triage Articulation Test. The second group consisted of parents/guardians of preschool children without speech disorders (articulation disorders).

The independent variables that were assessed were demographic - gender, family structure, number of household members, type of settlement; socioeconomic - education of parents, material status, work status of parents. The dependent variable was quality of family life.

To examine the sounds of a language, each country has its own articulation test that is adapted to the pronunciation of the sounds of that speaking area. In our speaking area, the Triage Articulation Test is most often used, which is used daily in speech therapy practice to assess the condition of the sounds of the Serbian language. It provides a detailed analysis of voices, both pathological and those that meet the criteria of correct pronunciation.

As a research instrument, in addition to a general questionnaire on demographic and socioeconomic characteristics of respondents (gender, marital structure, place of residence, number of household members, education, material status, and work status) which was created for this purpose,

the Family Quality of Life Survey (FQOL) was also used to assess the quality of life of family.

The Family Quality of Life Survey (FQOL) is a 25-item 5-point Likert-type scale that measures family quality of life in five domains: family interaction, parenting, emotional well-being, physical/material well-being, and support in related to disability/developmental disorder (9).

Descriptive statistics methods were used to display the data. Chi-square ( $\chi^2$ ) test was used to compare differences in frequency of categorical variables. All statistical calculations were performed using the commercial, standard software package SPSS, version 20.0 (IBM Corp., Armonk, NY, USA).

## Results

The conducted survey included 206 parents. Observed in relation to the gender of parents/guardians, there were (80.6%) female persons and 40 (19.4%) male persons. The average age of parents/guardians was  $35.90 \pm 7.82$  years, while no statistically significant difference was found in the average age of male and female persons ( $35.87 \pm 7.35$  vs.  $36.00 \pm 9.62$  years, Independent samples *t* test,  $P = 0.926$ ). A statistically significant difference between the two groups of parents was found for place of residence ( $P < 0.001$ ), work status ( $P = 0.005$ ), education levels ( $P < 0.001$ ), age distribution of children ( $P = 0.003$ ). A statistically significantly higher percentage of parents whose children have an articulation disorder were: from the villages (64.6%), unemployed (49.7%) and high school educated (47.2%), in contrast to parents of healthy children who were in a higher percentage from the city (66.7%), employed (73.3%) and with a university degree (42.2%). The socio-demographic characteristics of the parents as well as the differences in the two groups of parents are shown in Table 1.

**Table 1:** Socio-demographic characteristics of parents/guardians according to the presence/absence of articulation disorders in children

| Variable              |                         | Parents with children with articulation problems<br>N=161<br>n (%) | Parents without children with articulation problems<br>N=45<br>n (%) | $\chi^2$    |
|-----------------------|-------------------------|--|--|-------------|
| Gender                | Female                  | 130 (80.7%)  | 35 (77.8%)   | $P=0.604$   |
|                       | Male                    | 31 (19.3%)   | 10 (22.2%)   |             |
| Status                | Mother                  | 132 (81.9%)  | 34 (75.6%)   | $P=0.400$   |
|                       | Father                  | 27 (16.8%)   | 10 (22.2%)   |             |
|                       | Guardian                | 2 (1.3%)   | 1 (2.2%)   |             |
| Age<br>MD $\pm$ SD    |                         | 35.75 $\pm$ 8.57   | 36.40 $\pm$ 4.32   | $P=0.624^*$ |
| Place of living       | Village                 | 104 (64.6%)  | 15 (33.3%)   | $P < 0.001$ |
|                       | City                    | 57 (35.4%)   | 29 (66.7%)   |             |
| Employment status     | Employed                | 81 (50.3%)   | 33 (73.3%)   | $P = 0.005$ |
|                       | Unemployed              | 80 (49.7%)   | 12 (26.7%)   |             |
| Education level       | Elementary school       | 49 (30.4%)   | 6 (13.3%)  | $P < 0.001$ |
|                       | Middle school           | 76 (47.2%)   | 17 (37.8%)   |             |
|                       | Faculty                 | 21 (13%)   | 19 (42.2%)   |             |
|                       | Master study            | 13 (8.1%)  | 3 (6.7%)   |             |
|                       | Doctoral study          | 2 (1.3%)   | /  |             |
| Marital status        | Extramarital union      | 52 (32.3%)   | 9 (20%)  | $P=0.293$   |
|                       | Marriage                | 97 (60.2%)   | 29 (64.4%)   |             |
|                       | Divorced                | 12 (7.5%)  | 7 (15.6%)  |             |
| Children's' age       | 4                       | 26 (16.1%)   | 3 (6.7%)   | $P = 0.003$ |
|                       | 5                       | 9 (5.6%)   | /  |             |
|                       | 6                       | 91 (56.5%)   | 31 (68.9%)   |             |
|                       | 7                       | 40 (21.8%)   | 11 (24.4%)   |             |
| Family type           | With both parents       | 142 (88.2%)  | 36 (80%)   | $P=0.578$   |
|                       | With single parent      | 19 (11.8%)   | 9 (20%)  |             |
| Socio-economic status | Poor                    | 2 (1.3%)   | /  | $P=0.553$   |
|                       | Bad                     | 9 (5.6%)   | 1 (2.2%)   |             |
|                       | Good                    | 68 (42.2%)   | 21 (46.7%)   |             |
|                       | Very good               | 66 (40.9%)   | 19 (42.2%)   |             |
|                       | Excellent               | 16 (10%)   | 4 (8.9%)   |             |
| Number of children    | Single child            | 31 (19.2%)   | 8 (17.8%)  | $P=0.655$   |
|                       | Two children            | 88 (54.6%)   | 28 (62.2%)   |             |
|                       | Three and more children | 42 (26.2%)   | 9 (20%)  |             |

\*Mann Whitney test

When it comes to the sample of children, the research included 206 children, from of which 44.2% were girls and 55.8% were boys. Articulation disorder was detected in 78.2%, while 21.8%

had a normal finding, so further statistical data processing is aimed at testing the differences between the two groups of respondents: parents/guardians of children with articulation dis-

order (n=161) and parents/guardians of children without articulation disorders (n=45).

Family quality of life assessed using The Family Quality of Life Scale (FQOL) in five domains: 1) family interaction, 2) parenting, 3) emotional well-being, 4) physical/material well-being and 5) support related to disability/developmental disorder.

The analysis of the family interaction domain indicated the existence of a statistically significant difference between the two groups of respondents

regarding the aspect related to the fact that the family has other people/friends who provide them with support ( $P=0.021$ ). The percentage of satisfied respondents was significantly higher among families of children without disorders compared to families with children who have articulation disorders (64.4% vs. 21.7%), who also in 5.6% of cases expressed dissatisfaction with support from by other persons, which was not the case in the control group (Table 2).

**Table 2:** Differences in the family interaction domain between the two groups of respondents

| Variable   |                  | Presence of articulation problems | Absence of articulation problems | P        |
|--|------------------|-----------------------------------|----------------------------------|----------|
|  |                  | N=161                             | N=45                             |          |
|  |                  | n (%)                             | n (%)                            |          |
| My family enjoys the time we spend together                            | Very unsatisfied | 5 (3.1)                           | /                                | P =0.724 |
|  | Unsatisfied      | 6 (3.7)                           | /                                |          |
|  | Neither          | 4 (2.5)                           | 3 (6.7)                          |          |
|  | Satisfied        | 98 (60.8)                         | 29 (64.4)                        |          |
|  | Very satisfied   | 48 (29.9)                         | 13 (28.9)                        |          |
| My family members help children to be independent                      | Very unsatisfied | 5 (3.1)                           | /                                | P =0.479 |
|  | Unsatisfied      | 7 (4.3)                           | /                                |          |
|  | Neither          | 3 (1.9)                           | 2 (4.4)                          |          |
|  | Satisfied        | 67 (41.6)                         | 18 (40.0)                        |          |
|  | Very satisfied   | 79 (49.1)                         | 25 (55.6)                        |          |
| My family has the support they need to relieve stress                  | Very unsatisfied | 5 (3.1)                           | /                                | P =0.260 |
|  | Unsatisfied      | 9 (5.6)                           | /                                |          |
|  | Neither          | 6 (3.7)                           | 5 (11.1)                         |          |
|  | Satisfied        | 86 (53.4)                         | 22 (48.9)                        |          |
|  | Very satisfied   | 55 (34.2)                         | 18 (40)                          |          |
| My family members have other people who support them                   | Very unsatisfied | 9 (5.6)                           | /                                | P =0.021 |
|  | Unsatisfied      | 18 (11.2)                         | 3 (6.7)                          |          |
|  | Neither          | 36 (22.3)                         | 2 (4.4)                          |          |
|  | Satisfied        | 35 (21.7)                         | 29 (64.4)                        |          |
|  | Very satisfied   | 63 (39.1)                         | 11 (24.5)                        |          |
| My family members help the children with homework and other activities | Very unsatisfied | /                                 | /                                | P =0.725 |
|  | Unsatisfied      | 15 (9.3)                          | 3 (6.7)                          |          |
|  | Neither          | 18 (11.2)                         | 3 (6.7)                          |          |
|  | Satisfied        | 80 (49.6)                         | 26 (57.7)                        |          |
|  | Very satisfied   | 48 (29.9)                         | 13 (28.9)                        |          |

The analysis of the parenting domain pointed to the existence of a statistically significant difference between the two groups of respondents regarding the aspect related to the open communication of family members with each other ( $P=0.028$ ). In contrast to the families of children without disorders who were "satisfied" (35.6%) or "very satisfied" (64.4%) regarding the men-

tioned item, the families of children with articulation disorders expressed a certain degree of dissatisfaction, namely: 4, 9% "very dissatisfied" and 6.2% "dissatisfied" (Table 3).

No differences were found in the domain of emotional well-being between the two groups of respondents (Table 4).

**Table 3:** Differences in the parenting domain between the two groups of respondents

| Variable  |                  | Presence of articulation problems | Absence of articulation problems | P               |
|---|------------------|-----------------------------------|----------------------------------|-----------------|
|   |                  | N=161                             | N=45                             |                 |
|   |                  | n (%)                             | n (%)                            |                 |
| My family members have transportation provided to where they need to go | Very unsatisfied | 7 (4.3)                           | /                                | P =0.105        |
|   | Unsatisfied      | 9 (5.6)                           | /                                |                 |
|   | Neither          | 8 (4.9)                           | 7 (15.5)                         |                 |
|   | Satisfied        | 72 (44.7)                         | 17 (37.8)                        |                 |
|   | Very satisfied   | 65 (40.5)                         | 21 (46.7)                        |                 |
| My family members talk openly with each other                           | Very unsatisfied | 8 (4.9)                           | /                                | <b>P =0.028</b> |
|   | Unsatisfied      | 10 (6.2)                          | /                                |                 |
|   | Neither          | 14 (8.8)                          | /                                |                 |
|   | Satisfied        | 58 (36)                           | 16 (35.6)                        |                 |
|   | Very satisfied   | 71 (44.1)                         | 29 (64.4)                        |                 |
| My family members teach children to get along with others               | Very unsatisfied | 7 (4.3)                           | /                                | P =0.662        |
|   | Unsatisfied      | 4 (2.5)                           | /                                |                 |
|   | Neither          | 7 (4.3)                           | 2 (4.4)                          |                 |
|   | Satisfied        | 57 (35.4)                         | 18 (40)                          |                 |
|   | Very satisfied   | 86 (53.5)                         | 25 (55.6)                        |                 |
| My family members have time to follow our interests                     | Very unsatisfied | /                                 | /                                | P =0.721        |
|   | Unsatisfied      | 3 (1.9)                           | /                                |                 |
|   | Neither          | 3 (1.9)                           | /                                |                 |
|   | Satisfied        | 47 (29.2)                         | 13 (28.9)                        |                 |
|   | Very satisfied   | 108 (67)                          | 32 (71.1)                        |                 |
| Our family solves problems together                                     | Very unsatisfied | 5 (3.1)                           | /                                | P =0.064        |
|   | Unsatisfied      | 18 (11.2)                         | 2 (4.4)                          |                 |
|   | Neither          | 18 (11.2)                         | 2 (4.4)                          |                 |
|   | Satisfied        | 76 (47.2)                         | 22 (48.9)                        |                 |
|   | Very satisfied   | 46 (27.3)                         | 19 (42.3)                        |                 |



**Table 4:** Differences in the emotional well-being domain between the two groups of respondents

| Variable   |                  | Presence of articulation problems | Absence of articulation problems | P        |
|--|------------------|-----------------------------------|----------------------------------|----------|
|  |                  | N=161                             | N=45                             |          |
|  |                  | n (%)                             | n (%)                            |          |
| My family members support each other in achieving their goals                  | Very unsatisfied | 8 (4.9)                           | /                                | P =0.626 |
|  | Unsatisfied      | 4 (2.5)                           | /                                |          |
|  | Neither          | 8 (4.9)                           | 3 (6.7)                          |          |
|  | Satisfied        | 55 (34.2)                         | 15 (33.3)                        |          |
|  | Very satisfied   | 86 (53.5)                         | 27 (60)                          |          |
| My family members show that they love and care for each other                  | Very unsatisfied | 4 (2.5)                           | /                                | P =0.520 |
|  | Unsatisfied      | 6 (3.7)                           | /                                |          |
|  | Neither          | 5 (3.1)                           | /                                |          |
|  | Satisfied        | 58 (36)                           | 16 (35.6)                        |          |
|  | Very satisfied   | 88 (54.7)                         | 29 (64.4)                        |          |
| My family has help on the side that takes care of the needs of all our members | Very unsatisfied | 8 (4.9)                           | /                                | P =0.425 |
|  | Unsatisfied      | /                                 | /                                |          |
|  | Neither          | 5 (3.1)                           | /                                |          |
|  | Satisfied        | 44 (27.3)                         | 13 (28.9)                        |          |
|  | Very satisfied   | 104 (64.7)                        | 32 (71.1)                        |          |
| The adults in our family teach the children to make good decisions             | Very unsatisfied | 26 (16.1)                         | 3 (6.7)                          | P =0.101 |
|  | Unsatisfied      | 21 (13)                           | 2 (4.4)                          |          |
|  | Neither          | 34 (21.1)                         | 10 (22.2)                        |          |
|  | Satisfied        | 44 (27.3)                         | 20 (44.4)                        |          |
|  | Very satisfied   | 36 (22.4)                         | 10 (22.2)                        |          |
| My family has health care when they need it                                    | Very unsatisfied | 4 (2.5)                           | 1 (2.2)                          | P =0.879 |
|  | Unsatisfied      | 4 (2.5)                           | /                                |          |
|  | Neither          | 6 (3.7)                           | 2 (4.4)                          |          |
|  | Satisfied        | 60 (37.3)                         | 17 (37.8)                        |          |
|  | Very satisfied   | 87 (54)                           | 26 (57.8)                        |          |

Regarding the physical/material well-being domain, a statistically significant difference was found for dental care ( $P = 0.010$ ). 5.6% of families with children who have articulation disorders stated that they are "very dissatisfied", i.e. 13% of

them are "dissatisfied" with the dental care provided when it is needed, while in the group of families with healthy children, the attitudes were uniform, "satisfied" (51.1%) and "very satisfied" (48.9%) (Table 5).

**Table 5:** Differences in the domain of physical/material well-being between the two groups of respondents

| Variable   | Presence of articulation problems |           | Absence of articulation problems |  | P               |
|--|-----------------------------------|-----------|----------------------------------|--|-----------------|
|  | N=161                             |           | N=45                             |  |                 |
|  | n (%)                             |           | n (%)                            |  |                 |
| My family has a way to cover their expenses  | Very unsatisfied                  | 8 (4.9)   | /                                |  | P =0.149        |
|  | Unsatisfied                       | 9 (5.6)   | 1 (2.2)                          |  |                 |
|  | Neither                           | 15 (9.4)  | 2 (4.4)                          |  |                 |
|  | Satisfied                         | 70 (43.5) | 18 (40)                          |  |                 |
|  | Very satisfied                    | 59 (36.6) | 24 (53.4)                        |  |                 |
| Adults in our family know other people who are in our children's lives (friends, teachers, etc.) | Very unsatisfied                  | 7 (4.3)   | /                                |  | P =0.152        |
|  | Unsatisfied                       | 9 (5.6)   | /                                |  |                 |
|  | Neither                           | 15 (9.4)  | 2 (4.4)                          |  |                 |
|  | Satisfied                         | 82 (50.9) | 30 (66.7)                        |  |                 |
|  | Very satisfied                    | 48 (29.8) | 13 (28.9)                        |  |                 |
| My family is capable of handling life's ups and downs  | Very unsatisfied                  | 2 (1.3)   | /                                |  | P =0.708        |
|  | Unsatisfied                       | 7 (4.3)   | /                                |  |                 |
|  | Neither                           | 14 (8.7)  | 3 (6.6)                          |  |                 |
|  | Satisfied                         | 81 (50.3) | 24 (53.4)                        |  |                 |
|  | Very satisfied                    | 57 (35.4) | 18 (40)                          |  |                 |
| The adults in our family have time to take care of the individual needs of each child            | Very unsatisfied                  | 3 (1.9)   | /                                |  | P =0.669        |
|  | Unsatisfied                       | 6 (3.7)   | /                                |  |                 |
|  | Neither                           | 13 (8.1)  | 3 (6.6)                          |  |                 |
|  | Satisfied                         | 84 (52.2) | 24 (63.4)                        |  |                 |
|  | Very satisfied                    | 55 (34.1) | 18 (40)                          |  |                 |
| My family has dental care when they need it  | Very unsatisfied                  | 9 (5.6)   | /                                |  | <b>P =0.010</b> |
|  | Unsatisfied                       | 21 (13)   | /                                |  |                 |
|  | Neither                           | 13 (8.1)  | /                                |  |                 |
|  | Satisfied                         | 63 (39.1) | 23 (51.1)                        |  |                 |
|  | Very satisfied                    | 55 (34.2) | 22 (48.9)                        |  |                 |

In the domain of support related to disability, a statistically significant difference was found between the two groups of respondents for the feeling of family safety at work, at school and in the neighborhood ( $P =0.022$ ). In the control group of respondents, who declared themselves

"satisfied" (51.1%) and "very satisfied" (48.9%), there was no dissatisfaction with the feeling of security. Families of children with articulation disorders expressed dissatisfaction with this item: 1.9% "very dissatisfied" and 4.9% "dissatisfied" (Table 6).



**Table 6:** Differences in the domain of disability-related support between the two groups of respondents

| Variable   |                  | Presence of articulation problems | Absence of articulation problems | P        |
|--|------------------|-----------------------------------|----------------------------------|----------|
|  |                  | N=161                             | N=45                             |          |
|  |                  | n (%)                             | n (%)                            |          |
| My family feels safe: at home, at work, at school, in the neighborhood   | Very unsatisfied | 3 (1.9)                           | /                                | P =0.022 |
|  | Unsatisfied      | 8 (4.9)                           | /                                |          |
|  | Neither          | 15 (9.4)                          | /                                |          |
|  | Satisfied        | 81 (50.3)                         | 23 (51.1)                        |          |
|  | Very satisfied   | 54 (33.5)                         | 22 (48.9)                        |          |
| My family member with a disability has support to achieve their goals at school or at work                             | Very unsatisfied | 4 (2.5)                           | /                                | P =0.573 |
|  | Unsatisfied      | 4 (2.5)                           | /                                |          |
|  | Neither          | 6 (3.7)                           | /                                |          |
|  | Satisfied        | 55 (34.2)                         | 18 (40)                          |          |
|  | Very satisfied   | 92 (57.1)                         | 27 (60)                          |          |
| My family member with a disability at home has support to achieve their goals  | Very unsatisfied | 17 (10.6)                         | 5 (11.1)                         | P =0.485 |
|  | Unsatisfied      | 12 (7.4)                          | /                                |          |
|  | Neither          | 23 (14.3)                         | 7 (15.6)                         |          |
|  | Satisfied        | 58 (36)                           | 15 (33.3)                        |          |
|  | Very satisfied   | 51 (31.7)                         | 18 (40)                          |          |
| My disabled family member has support to make friendships  | Very unsatisfied | 12 (7.4)                          | 2 (4.4)                          | P =0.460 |
|  | Unsatisfied      | 10 (6.2)                          | /                                |          |
|  | Neither          | 55 (34.2)                         | 8 (17.7)                         |          |
|  | Satisfied        | 50 (31.1)                         | 20 (44.4)                        |          |
|  | Very satisfied   | 34 (21.1)                         | 15 (33.4)                        |          |
| My family has good relationships with service providers who provide services and support to our disabled family member | Very unsatisfied | 15 (9.4)                          | 3 (6.6)                          | P =0.212 |
|  | Unsatisfied      | 20 (12.4)                         | 3 (6.6)                          |          |
|  | Neither          | 45 (27.9)                         | 13 (28.9)                        |          |
|  | Satisfied        | 40 (24.8)                         | 11 (24.6)                        |          |
|  | Very satisfied   | 41 (25.5)                         | 15 (33.3)                        |          |

## Discussion

Diagnosis of speech and language disorder in childhood affects the child in various aspects, and many researchers found the connection with poorer mental health outcome, especially in the area of behavioral problems, but the relationship was not clear due to other risk factors that may contribute in developing behavioral problems (10). In our research, the speech problems were detected in 78.2% of children who undergo the articulation test, more common among boys.

Also, the results of health-related quality of life in people with speech disorder were not consistent, where some did not found difference in comparison to the controls or found lower scores in quality of life, some did found significant correlation at all (11-13).

From parent perspective one of the most worrying aspect for their children with speaking problems were mental health because of obstacles they have in expressing themselves or being understood, especially among peers. In contrary, although the social interaction with teacher was

marked poorer in comparison to the children without speaking disorders, the competence of children and relationship with teachers were not influenced (14). In our research parents expressed feeling of family safety at work, at school and in the neighborhood where parents with children with speech disabilities felt very dissatisfied compared to the parents with children without speech disorder, which felt very satisfied about safety of their children.

In the earlier period of the life, young children with speaking and language disabilities can be isolated because of their conditions which limits their opportunities in different activities among peers in school, it makes harder to maintain and form connections, and later in the life it reflects to the life opportunities and career paths (1). As the results of not being more introduced with limitations of those people, public behavior of people negatively influence the health related quality of life (15). According to our results, parents expressed dissatisfaction with level of support from other people, which leads to isolation of their children.

In one study, there were investigated the differences of parents concerns between children with hearing and speaking disorders and control groups in the area of their children's future development, and the parents with children with hearing problems scored lower than speaking problem indicating that hearing problems can cause larger impact (16).

The depression symptoms among mothers showed significant connection to the children speaking development, and parents with children with speech impairments graded their subjective health much worse than it actually was (17). Our study shows no differences in the domain of emotional well-being between the two groups of respondents.

Very often, children with speech difficulties in early age develop issues with understanding speech, but also influence their writing and reading that influence child's psychosocial health and increase the stress levels of their parents (18). The analysis of the parenting domain pointed to the existence of issue in open communication

among group of parents. This may lead to the inadequate communication with children and can negatively affect further development of speech disorder.

## Conclusion

Our findings indicate the importance of research on the quality of life of parents of children with speech disorders. Although there are no differences in the domain of emotional well-being between the two groups of respondents, concerns about the level of support from other people and the possibility of isolating their children indicate the necessity of integrative efforts in the field of education, health services and social groups in order to meet the needs of children with speech disorders and thereby ensure a better quality of life for their families.

## Journalism Ethics considerations

Ethical issues (Including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc.) have been completely observed by the authors.

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## Conflict of interest

The authors declare that there is no conflict of interests.

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