

# The Correlation of Students' Progress Assessed by Verbotonal Teachers and Speech and Language Pathologists and Social Support Reported by Parents

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**Burušić Čilić, Lidija; Pavičić Dokoza, Katarina; Bakota, Koraljka**

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Lidija Čilić Burušić<sup>1</sup>, Katarina Pavičić Dokoza<sup>2</sup> Koraljka Bakota<sup>3</sup>

<sup>1</sup>SUVAG Polyclinic for the Rehabilitation of Listening and Speech, Zagreb, Ljudevita Posavskog 10, Zagreb, Croatia, lburusic@suvag.hr

<sup>2</sup>SUVAG Polyclinic for the Rehabilitation of Listening and Speech, Zagreb,

<sup>3</sup>SUVAG Polyclinic for the Rehabilitation of Listening and Speech, Zagreb

## **THE CORRELATION OF STUDENTS' PROGRESS ASSESSED BY VERBOTONAL TEACHERS AND SPEECH AND LANGUAGE PATHOLOGISTS AND SOCIAL SUPPORT REPORTED BY PARENTS**

### **Abstract**

The paper examines the differences and similarities in the assessments of verbotonal teachers and speech and language pathologists regarding the activities, educational habits, and progress of children with speech and language disorders and hearing impairments who are enrolled in the program of the elementary school at SUVAG Polyclinic. These assessments were compared with perceived social support reported by students' parents. The research was conducted at the SUVAG Polyclinic Elementary School, Zagreb in 2019. Three groups of participants took part in the research: parents of children with speech and language disorders and hearing impairment, verbotonal teachers and SLPs of those children. The results of the research showed that there is a significant degree of harmonization in the assessment of the child's activity and educational habits and progress by verbotonal teachers and SLPs. Parents' reports regarding received social support differ from the opinion of the experts.

**Keywords:** social support, functional skills, students with developmental disorders and hearing impairment

## **PROCJENA VERBOTONALNIH UČITELJA I LOGOPEDA/ AUDIOREHABILITATORA O FUNKCIONIRANJU UČENIKA S GOVORNO-JEZIČNIM POREMEĆAJIMA I UČENIKA S OŠTEĆENJEM SLUHA S OBZIROM NA UTJECAJ SOCIJALNE PODRŠKE RODITELJA**

### **Sažetak**

U radu su se ispitale razlike odnosno podudarnosti u procjenama verbotonalnih učitelja i logopeda o aktivnostima, odgojno-obrazovnim navikama i napredovanju djece s govorno-jezičnim poremećajima i oštećenjem sluha Osnovne škole Poliklinike SUVAG. One su povezane sa socijalnom podrškom koju roditelji učenika primaju iz okoline. Istraživanje je provedeno u Osnovnoj školi Poliklinike SUVAG Zagreb tijekom 2019. godine. U istraživanju su sudjelovale tri skupine sudionika: roditelji djece s govorno-jezičnim poremećajima i oštećenjem sluha, verbotonalni učitelji i logopedi. Rezultati istraživanja pokazali su da postoji visok stupanj usklađenosti procjene djetetovih aktivnosti, odgojno-obrazovnih navika i napretka koji su procijenili verbotonalni učitelji i logopedi. No, percepcija roditelja o primljenoj socijalnoj podršci drugačija je u odnosu na percepciju navedenih stručnjaka.

**Ključne riječi:** socijalna podrška; funkcionalne vještine, učenici s teškoćama u razvoju i oštećenjem sluha

## Introduction

Verbotonal teachers<sup>1</sup> and speech and language pathologists (hereinafter SLPs) play a key role in the process of education, assessing a child's language, speech, and communication development. The parents of such children represent an important link in this process. Without their active participation, rehabilitation and education would not be successful. The cooperation of experts of various profiles is an important aspect in the success of rehabilitation (Dulčić, Bakota, & Pavičić Dokoza, 2009), although this relation has not yet been sufficiently explored.

The rationale for this research was the fact that parents who actively participate in rehabilitation and schooling processes on a daily basis do not have the same living conditions and are not able to provide their children with the same quality of support. The project was created to explore the coherence of the interdisciplinary team of SUVAG Polyclinic Elementary School regarding the fact that verbotonal teachers and SLTs collaborate daily. It is a dynamic system based on interdependent and equal interaction between experts. In this context, it was interesting to see whether the social support that parents receive from the environment affected the assessment of verbotonal teachers and SLPs on the quality of students' activities, educational habits and progress.

Research has shown that social support has a positive effect on parental well-being, family functioning and interactions among family members, as well as on parental functioning. Research conducted by Wong et al. (2018) showed that parents may need assistance with managing behavioural problems at home, and teachers should facilitate more opportunities to practice prosocial behaviour at school. Intervention efforts should focus on facilitating good functional listening skills, as this may, in turn, improve the mental health of young DHH children.

Slovik et al. (2020) reported on importance of cooperation between parents, SLTs and the teacher during the rehabilitation. The authors especially emphasize the importance of the role of a hearing-impaired child's parent in the process

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<sup>1</sup> Verbotonal teachers and speech and language pathologists in SUVAG Polyclinic work with children with speech, language and hearing impairments using the verbotonal method founded by academician Petar Guberina in the middle of the 20th century (Dulčić et al., 2014).

of rehabilitation. They concluded that parents are the best in assessing their child's hearing, followed by the speech therapist, with the least sensitive being the school teacher.

Sadler (2005) emphasized the partner relationship among students, teachers and parents as an important factor in the process of students' education. Establishing a positive emotional connection in the relation parent – child and child – teacher is a precondition for the healthy development of a child, which is indispensable for emotional and social maturity. This is very noticeable in the educational process of students with developmental difficulties (Sadler, 2005).

Morgan and Haglund (2009) state that the connections of individuals on social networks and in social communities strongly influence their health, well-being, and life expectancy. Also, social support is important for the academic success of students with disabilities. Cheng, Deng and Yang (2020) conducted a study on 225 students with hearing impairment attending schools in mainland China. Those with a higher level of social support scored higher, while those with a lower level of social support had lower grades.

Lu et al. (2015) and Nomagtchi and Milkie (2020) point out that parents who receive more social support from different sources in their environment will have a better quality of life and will cope better with the various challenges and problems they face as their children grow up. Brooks et al. (2015) write that the quality of social relations between the parent and child is related to social support and will affect children's satisfaction, the child's self-esteem and ability to refuse risky health behaviours.

Hemati Alamdarloo et al. (2019) showed that there is a significant difference between perceived social support and its subscales between mothers of children with hearing impairments, mothers of children with visual impairments and mothers of children without disabilities. The observed social support and its subscales in mothers of children with hearing impairment and mothers of children with visual impairment are significantly lower than in mothers of children who develop normally ( $p < 0.01$ ). It should be noted that there was no significant difference in the perception of social support between mothers of children with hearing impairments and mothers of children with visual impairments. Lippold et al. (2018) concluded in their research that children whose parents

have a better quality of life and who spend more time with their children have better health and health-related patterns of behaviour. Parents who have greater social support in their environment are more connected to their children than parents who feel alienated in their community. The research conducted by Aras et al. (2013) showed that parents of children with impaired speech and hearing in preschool age have a lower HRQoL<sup>2</sup> than parents of healthy children of the same age. The mothers of hearing-impaired children are particularly affected, which shows a negative impact in almost all health domains.

Vasilopoulou and Nisbet (2016) also prove that parenting children with disabilities is extremely challenging and complex. Raising children with disabilities requires a lot of sacrifice, time dedicated only to the child, and there is a greater need for information, advice, and support from various sources. Therefore, a significant role of others is expected, especially their social support, in achieving desirable outcomes (Aras et al., 2013).

Students in the SUVAG Polyclinic Elementary School are educated according to the regular programme, but in special conditions. These special conditions refer to students' participation in daily speech and language rehabilitation, physiotherapy and other verbotonal methodological programs in SUVAG Polyclinic (body and music stimulation) combined with the mainstream education process. In the SUVAG Polyclinic Elementary School, verbotonal teachers and SLPs combine their specific knowledge, competencies and skills with a holistic approach and provide intensive therapy and optimal education to students with hearing and/or speech disorders. Through teamwork and a good organizational structure, they evaluate the therapy and educational goals initially defined and, if necessary, redefine them.

## Methodology

### *Aim and purpose of the research*

The intention of this research was to contribute to the existing knowledge on behavioural assessments of children with speech and language disorders by verbotonal teachers and SLPs, as well as to assess if there is a correlation with

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<sup>2</sup> Health-Related Quality of Life

parents' judgement regarding social support. This can be observed as a starting point for decision making regarding education and therapy goals.

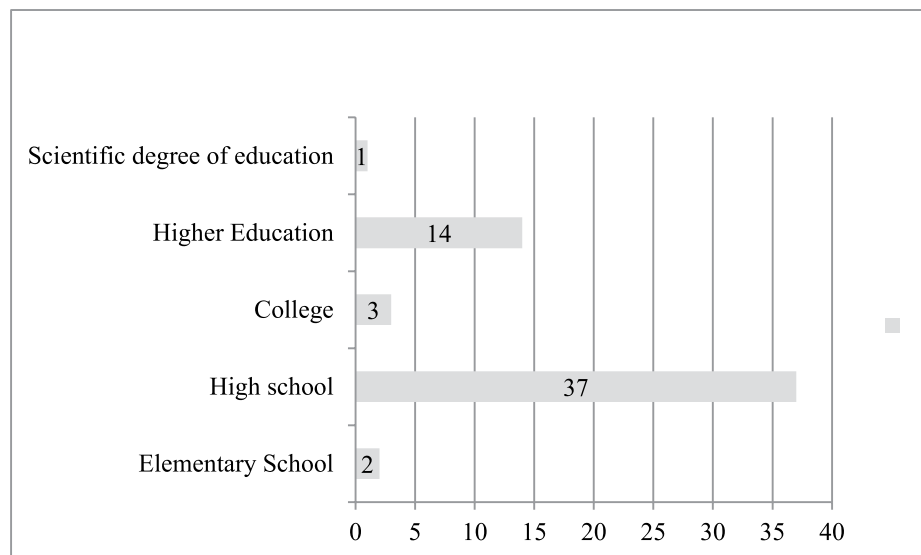
In connection with the aforementioned research intention, the aim of this research was to:

1. Analyse and correlate the factor structure of the questionnaire created for the purpose of this study by having the experts complete the questionnaires (verbotonal teacher vs SLPs).
2. Examine the differences and/or similarities in the assessments of verbotonal teachers and SLPs regarding activities, educational habits, and progress of children with speech and language disorders and hearing impairments measured by questionnaires and to correlate them with parents' assessment of the social support they receive.

### *Sample*

Participants in this research were parents of 1st to 4th grade students enrolled in SUVAG Polyclinic Elementary School. Research was conducted in 2019. Three groups of participants participated in the study. The first group of participants were 57 parents of children enrolled in the study, the second group were verbotonal teachers (16 participants) and the third group included SLPs (16 participants). 84% of the parent group were mothers. In the group of verbotonal teachers and SLPs, all participants were women. Regarding parents' degree of education (Figure 1), the largest number of parents in this study finished high school (65%).

**Figure 1.** Parental degree of education



### *Research methods*

Parents completed the Croatian version of the Social Support Scale. The original Social Support Scale was constructed by MacDonald in 1998, and the verification of its metric characteristics was also done in Croatia. The scale consists of 56 statements relating to the social support of friends and family. Participants indicate agreement with each individual statement on a scale of 5 degrees, with the number 1 meaning general disagreement and number 5 a complete match. The total result is obtained as a linear combination of responses on all items, and the reverse scored items are considered. The reliability of the internal correlation type (Cronbach alpha) is 0.96 for total social support. All statements in the scale relating to different types of social support have satisfactory factor saturations (from 0.40 to 0.88) (Tucak Janković et al., 2016).

Verbotonal teachers and SLTs independently rated and provided answers to a set of sixteen questions measuring different aspects of a child's progress (related to successful rehabilitation and educational achievements) designed for the purpose of this study. Each question was answered on a 5-point Likert-type scale.

## Results

For the analysis in this study, the total score on the Social Support Scale was obtained. The average result (AM) of the total score of the Social Support Scale was 4.43 with a standard deviation (SD) of 0.42.

To determine the constructive and content validity of the questionnaire for assessing the functioning of students by verbotonal teachers and SLPs, a factor analysis was performed. Factor analysis showed that the sphericity condition for factor analysis was met (Bartlett sphericity test  $h^2 = 361.38$ ,  $df = 120$ ,  $p < 0.01$ ), and KMO (Kaiser-Meyer-Olkin test) was 0.67, which also satisfied the condition for conducting a factor analysis. Extraction was performed by the principal components method with direct oblimin rotation. Kaiser-Gutman criterion factor analysis singles out four factors that have an Eigen value greater than 1. The first factor has an Eigen value of 7.59, the second factor a value of 2.61. The third factor also has an Eigen value above 1 (1.24), and the fourth factor has an Eigen value of 1.05. A total of four factors explains 77.99% of the variance.

**Table 2.** Factor matrix saturation of questionnaire particles Assessment of student functioning - SLPs - component model with direct oblimin rotation

Particle	Factor 1	Factor 2	Factor 3	Factor 4
1. The student cooperates well during rehabilitation.			0.420	
2. The student completes homework regularly.	0.609	0.350		
3. The student has good relationships with peers.				1.008
4. The student treats adults with respect.			0.523	0.419
5. The parents are regularly informed about certain activities during therapy.		0.984		
6. The student participates in extracurricular activities.			-0.413	0.413
7. The parents are proactive about strengthening their role in therapy.		0.835		
8. The student is happy to come to therapy during the school holidays.			0.924	



Particle	Factor 1	Factor 2	Factor 3	Factor 4
9. In addition to the parents, other family members are involved in the rehabilitation work with the student.	0.386	0.586		
10. The student is happy to participate in solving tasks in pairs with his peers.				0.628
11. The student is making good progress in the planned activities.	0.926			
12. The assessments of rehabilitators, teachers and parents regarding the student's status are harmonized.	0.728			
13. The assessment of rehabilitators, teachers and parents about the student's activity during therapy is harmonized.	0.585			0.308
14. The parents clearly and accurately inform rehabilitators about the time spent working with the student at home, respecting the instructions given by the experts.		0.913		
15. The student likes to play with his peers during the holidays.				0.957
16. The parents of the student socialize with other parents outside of the rehabilitation environment.				

The first factor called *Students Activity in Rehabilitation* include particles related to the topics of completing rehabilitation materials from home, student progress in planned activities, and the consistency of assessments of rehabilitators, teachers, and parents regarding student status as well as activities during therapy. Two particles saturate on the first and second/fourth factors, respectively, but the saturations are higher in the first factor and the particles are treated as particles of the first factor.

The second factor called *Collaboration with Parents* includes items that thematically address parental involvement in rehabilitation, whether they are regularly informed about therapy activities, how proactive they are in strengthening their role in therapy, whether other family members are involved besides the parents and how and whether parents report to the rehabilitator accurately and

clearly about the time spent by the students on homework while respecting the instructions given by experts.

The third factor called *Collaboration of Student with the Rehabilitator* includes particles of how much a student is progressing in individual rehabilitation, whether he or she treats adults with respect, and whether he or she is happy to come to therapy during the school holidays. The particle "Student treats adults with respect" saturates in the third and fourth factors but has higher saturation in the third and can meaningfully be placed in the third factor, therefore it has been analyzed as a particle of the third factor.

The fourth factor called *Student Activities Outside Rehabilitation* include particles that discuss a student's relationship with peers, participation in extracurricular activities, student participation in solving tasks in pairs with their peers, and students' leisure games with their peers. The particle "Student participates in extracurricular activities" saturated into the third and fourth factors, however, according to saturation, it meaningfully belongs to the fourth factor and is thus analyzed. The last particle "Parents of students socialize with other parents outside the rehabilitation environment" did not saturate into four separate factors and as such was excluded from further analysis.

By reviewing the matrix of correlations between the total score on the questionnaire of the assessment of student functioning by the SLTs and all four factors, satisfactorily high significant correlations were obtained. Factor 1 positively correlates with an overall score of 0.72, the second factor scored 0.77, the third factor 0.80 and the fourth factor 0.89.

Furthermore, the correlations between the first factor and first factor's items also have satisfactorily high correlations with the first factor in the range of 0.79 to 0.85. The reliability of the internal consistency for the first factor is good, the Cronbach's alpha coefficient is 0.81.

The correlations between the second factor and second factor's items are also satisfactory and range from 0.83 to 0.91. The reliability of the internal consistency for the second factor is satisfactory, the Cronbach's alpha coefficient is 0.88.

The correlations between the third factor and third factor' items range from 0.81 to 0.90, which is also satisfactory. The Cronbach alpha coefficient is 0.80.

In the fourth factor, the correlations between the fourth factor and factor's items are satisfactory and range from 0.82 to 0.91. The Cronbach's alpha coefficient of 0.90 is also satisfactory.

Also, to determine the constructive and content validity of the questionnaire for assessing the functioning of students by verbotonal teachers, another factor analysis was made. Factor analysis showed that the sphericity condition for factor analysis was met (Bartlett sphericity test  $h^2 = 519.14$ ,  $df = 120$ ,  $p < 0.01$ ), and KMO (Kaiser-Meyer-Olkin test) was 0.71, which also satisfied the condition for conducting a factor analysis. Extraction was performed by the principal components method with direct oblimin rotation. Kaiser-Gutman criterion factor analysis singles out three factors that have an Eigen value greater than 1. The first factor has an Eigen value of 5.81, the second factor 3.42. The third factor has an Eigen value of 1.34. A total of three factors explains 66.06% of the variance.

**Table 3.** Factor matrix saturation of questionnaire particles Assessment of student functioning –verbotal teachers - component model with direct oblimin rotation

Particle	Factor 1	Factor 2	Factor 3
1. The student cooperates well during class.		0.421	0.603
2. The student completes homework regularly.	0.846		
3. The student has good relationships with peers.		0.844	
4. The student treats adults with respect.	0.361	0.562	
5. The parents are regularly informed about certain activities during the students' education.	0.964		
6. The student participates in extracurricular activities.			
7. Parents are proactive in strengthening their role in upbringing and education.	0.670		0.316
8. The student is happy to come to the workshops during the school holidays.			0.508
9. In addition to the parents, other family members are also involved in the educational work with the student.	0.411		0.399

Particle	Factor 1	Factor 2	Factor 3
10. The student is happy to participate in solving tasks in pairs with his peers.		0.840	
11. The student is making good progress in the planned activities.			0.928
12. The assessments of rehabilitators, teachers and parents regarding the student's status are harmonized.			0.726
13. The assessment of rehabilitators, teachers and parents about the student's activity during therapy is harmonized.			0.791
14. Rhents clearly and accurately inform rehabilitators about the time spent working with the student at home, respecting the instructions given by the experts.	0.842		
15. The student likes to play with his peers during the holidays.		0.916	
16. Parents of students socialize with other parents outside of the rehabilitation environment.	0.713		

The first factor called *Collaboration with Parents and Activities from Home* included particles related to parenting activity in educational work and homework writing. Two particles saturate on the first and third fourth factors, but the saturations are higher in the first factor and the particles are analyzed as particles of the first factor.

The second factor called the *Student's Relationship with Peers and toward Adults* included particles that process a student's relationship with peers and how they relate to adults. The first particle also saturated on this factor, but it was later processed in the following way to the level of saturation and meaning in the third factor.

The third factor called *Student Collaboration and Assessment* included particles of how much a student cooperates during class, whether he or she likes to come to workshops during school holidays, how he or she progresses in planned activities, and whether assessments of his or her status are consistent between teachers, parents, and rehabilitators. The particle "Student cooperates well during classes" also saturated in the second factor but was retained as a particle of the third factor.

The particle "Student participates in extracurricular activities" did not saturate in any of the three separate factors.

By reviewing the correlation matrices between the total score on the verbotonal teacher questionnaire and all four factors, satisfactorily significant correlations were obtained. It is slightly lower for the second factor, but still moderately high and significant. Factor 1 positively correlates with an overall score of 0.85, the second factor 0.50, the third factor 0.83.

Furthermore, the correlations between the first factor and first factor's items also have satisfactorily high correlations in the range of 0.68 to 0.92. The reliability of the internal consistency for the first factor is good, the Cronbach's alpha coefficient is 0.90. The correlations of the second factor with the second factor's items are also satisfactory and range from 0.73 to 0.91. The reliability of the internal consistency for the second factor is satisfactory, the Cronbach's alpha coefficient is 0.87. The correlations of the third factor and third factor's items range from 0.63 to 0.88, which is also satisfactory. The Cronbach alpha coefficient is 0.79.

**Table 4.** Descriptive statistics of total factor scores

	Descriptive Statistics				
	N	Min	Max	Mean	SD
Student Activity in Rehabilitation	29	6.00	20.0	17.0690	3.39044
Collaboration with Parents	34	4.00	20.0	11.7353	4.54812
Collaboration of Student with the Rehabilitator	49	3.00	15.0	11.2653	2.73690
Student Activities Outside Rehabilitation	41	10.00	20.00	16.9268	3.12562
Collaboration with Parents and Activities from Home	27	35.00	73.00	56.6667	11.26601
Student's Relationship with Peers and toward Adults	50	7.00	29.00	22.3800	6.14747

	Descriptive Statistics				
	N	Min	Max	Mean	SD
Student Collaboration and Assessment	52	6.00	20.00	17.9231	3.12389
Student Activity in Rehabilitation	49	10	25.00	19.8980	3.42932
Valid N (listwise)	22				

To examine whether there is a statistically significant correlation between the scale of social support and the obtained factors, a Pearson correlation was made. There is a statistically significant positive correlation between student activity during rehabilitation and student collaboration with the SLPs ( $r = 0.47$ ,  $p < 0.05$ ). There is a statistically significant negative correlation between perceived social support by parents and student cooperation with the SLPs ( $r = -0.35$ ,  $p < 0.04$ ). No statistically significant correlation between perceived social support and other factors were found. There is a statistically significant positive correlation between students' cooperation with the SLPs and students' activities outside rehabilitation ( $r = 0.68$ ,  $p < 0.01$ ). Also, there is a statistically significant positive correlation between student activity in rehabilitation and student activity outside rehabilitation ( $r = 0.54$ ,  $p < 0.01$ ). There is a statistically significant positive correlation between the cooperation of students with the SLPs and the cooperation of parents with the rehabilitator ( $r = 0.41$ ,  $p < 0.05$ ).

Teachers score the relationship with peers and adults as better in those students who cooperate better with SLPs ( $r = 0.31$ ,  $p < 0.01$ ). There is a statistically significant positive correlation between a student's rehabilitation activities and teachers' assessments of relationships with peers and adults ( $r = 0.62$ ,  $p < 0.01$ ). There is a statistically significant positive correlation between students' cooperation with SLPs and teachers' assessment of students' cooperation in class and assessment of student status ( $r = 0.33$ ,  $p < 0.05$ ). There is a statistically significant positive correlation between students' activities outside rehabilitation (extracurricular activities and peer relationships) and teachers' assessment of cooperation with parents and work at home ( $r = 0.48$ ,  $p < 0.01$ ). Also, rehabilitators assess non-rehabilitation activities as better in students whose teachers

assess student participation in class as good, as well as assessments of congruence of student status ( $r = 0.35$ ,  $p < 0.05$ ).

There is a statistically significant positive correlation between the teacher's assessment of cooperation with parents and performance of activities at home and the assessment of student cooperation in class and congruence of assessments of student progress status ( $r = 0.55$ ,  $p < 0.01$ ). There is a statistically significant correlation between student participation in class and assessment of status and teacher assessment of students' relationship with peers and towards adults ( $r = 0.39$ ,  $p < 0.01$ ). No statistically significant correlations were found between perceived social support and factors derived from questionnaires completed by the verbotonal teacher.

## Discussion

Verbotonal teachers and SLPs have different but complementary skills in encouraging and rehabilitating children's speech-language expression and listening development. SLPs are trained for a language-analytical approach, acquisition of language and speech abilities and skills, while teaching is primarily focused on implementing curricula but encouraging speech-language development and listening in the classroom. The benefits of interdisciplinary collaboration include the transfer and exchange of knowledge and skills between professionals and an approach that meets the requirements of educational curricula and speech-language therapy (Wright & Kersner, 2004).

Wilson, McNeill and Gillon (2016) write about the need to develop and encourage collaborative practice of students, future speech therapists and classroom teachers, emphasizing that acting on the common experiences of SLPs and teachers creates optimal professional conditions.

As a result, at the SUVAG Polyclinic Elementary School and Kindergarten, SLPs and verbotonal teachers work in teams, carry out interdisciplinary work, and develop collaborative competencies such as understanding professional roles and expertise and the skill to make joint professional decisions.

In this study, parents report extremely high scores on the social support scale. Also, the research showed that there is a compatibility regarding the

assessments by verbotonal teachers and SLPs, i.e., that they agree in assessing the functioning of the child. Observed agreement is important because it indicates a high degree of objectivity in the assessment of students by different experts working in the fields of education and rehabilitation. Teachers scored students' work in class as better in the majority of cases when SLPs also positively scored cooperation with a student. So, assessment of student status was consistent.

Those students assessed by their verbotonal teachers to have better cooperation with parents and who completed their homework, were also evaluated by SLPs as scoring higher in activities outside rehabilitation. Also, SLPs assess non-rehabilitation activities higher in students whose verbotonal teachers assess student participation in teaching as good as well as assessments of student status compliance.

Where verbotonal teacher-parent collaboration is better, student-class collaboration is better and these assessments are more consistent.

Verbotonal teachers assess student participation as better in students who maintain good relationships with peers and with adults.

This is in line with the research done by Wilson, McNeill and Gillon (2016) that emphasizes the importance of the connection and influence within the triangle child-parents-experts working with the child, which is the basis of the intervention procedure.

Dulčić et al. (2018) pointed out that it is necessary for both experts who work with the child and parents to objectively assess the child's behaviour in order to have the same expectations. Significant differences between experts and parents in the perception of a child's behaviour cause deviations in expectations of rehabilitation and educational achievements, which has a negative impact on all participants in the process.

It is evident that mothers were significantly more involved in the study, which corresponds to the results of previous research. Research shows that during childhood and adolescence, mothers generally spend more time with their children than fathers (Phares, Fields, & Kamboukos, 2008).



The results of this research show that the lower the social support, the more students of the SUVAG Polyclinic prefer to come for therapy during the school holidays. It is to be expected that students of lower chronological age whose parents do not have social support, achieve in individual rehabilitation, through a stable adult figure, relationships that are lacking in the family. Due to the lack of social support, parents cannot devote as much time to their children as they would like to while performing tasks that ensure the livelihood of the family. This component is not emphasized by the verbotonal teachers because group work has a completely different emotional and social dynamics.

It should be noted that the results indicate that students who cooperate better with the SLPs are eager to participate in rehabilitation and progress well in the planned activities, while the assessment of their status is more consistent. Students whose parents work better together also work better with the SLPs themselves. It is also worth noting that students whose parents work better with the SLPs, maintain better relationships with peers, and participate in extracurricular activities. The resulting different factor structures depending on the assessor (verbotonal teacher vs SLPs) are logical. Those experts have a different scope of practice resulting in different relationship with the student. Also, the student's participation is different (education vs. rehabilitation context).

The quality of support, as well as the attitudes of verbotonal teachers and SLPs, are of great importance for the success of rehabilitation and education.

## Conclusion

Collaboration between SLPs and verbotonal teachers is useful to support children's communication skills. SLPs and teachers receive important information about the characteristics of a child's language and speech development through parental assessment. Therefore, speech therapy assessment with parental observation provides a comprehensive description of the child's language, speech, cognitive and emotional development.

A number of studies have confirmed that parents differ both in the interest they show in the student's activities and in the attention, they pay to the child's rehabilitation and schooling. To obtain as relevant information as possible about the child's progress, as well as to equalize instructions on the appropriate form

of schooling and rehabilitation i.e. what parents can do to support the rehabilitation and schooling of their child, it is important that experts' monitoring of the child's achievements is equalized and synchronized. The research showed that there is consistency in the assessment of student activities and educational habits by verbal teachers and SLPs. This can positively affect the planning and implementation of educational and rehabilitation outcomes and provide guidance to parents about the needs of their children. The social support which parents receive from the environment, friends, and family has not been shown to have a statistically significant effect on the assessment of a child's progress by the rehabilitation expert or teacher.

## References

- Aras, I., Stevanović, R., Vlahović, S., Stevanović, S., Kolarić, B., & Kondić, Lj. (2013). Health related quality of life in parents of children with speech and hearing impairment. *International Journal of Pediatric Otorhinolaryngology* 78(2), DOI: 10.1016/j.ijporl.2013.12.001
- Brooks, F., Zaborskis, A., Tabak, I., Carmen Granado Alcon, M. D., Zemaitiene, N., De Roos, S., & Klemra, E. (2015). Trends in adolescents' perceived parental communication across 32 countries in Europe and North America from 2002 to 2010. *The European Journal of Public Health*, 25(Suppl 2), 46-50. DOI:10.1093/eurpub/ckv034
- Cheng, S., Deng, M., & Yang, Y. (2020). Social support and student engagement among deaf or hard-of-hearing students. *Communication Disorders Quarterly*, 152574012095063. DOI:10.1177/1525740120950638
- Dulčić, A., Bakota, K., & Pavičić Dokoza, K. (2009). In *European Conference on Educational Research: Theory and Evidence in European Educational Research: Book of Abstracts*. Wien; Universität Wien.
- Dulčić, A., Pavičić Dokoza, K., Bakota, K., Šimunović, Z., & Košćec, G. (2014). *From Difficulties to a Kaleidoscope of Possibilities*. ArTresor. <https://urn.nsk.hr/urn:nbn:hr:257:825438>.
- Dulčić, A., Pavičić Dokoza, K., Bakota, K., & Tadić, I. (2018). Parents' and speech and language pathologists' attitudes toward preschool children with speech and language disorders. *Logopedija*, 8 (1), 13-20. DOI:10.31299/log.8.1.3.
- Hemati Alamdarloo, G., Rangani, A., Rostami, S., & Morovat, M. (2019). Perceived social support in mothers of typically developing children and mothers of children

with hearing sensory impairment. *Auditory and Vestibular Research* 83(3), 198-203. DOI:10.18502/avr.v28i3.1231

Lippold, M. A., Glatz, T., Fosco, G. M., & Feinberg, M. E. (2018). Parental Perceived Control and Social Support: Linkages to Change in Parenting Behaviors During Early Adolescence. *Family process*, 57(2), 432–447. DOI: 10.1111/famp.12283

Lu, M., Yang, G., Skora, E., Wang, G., Cai, Y., Sun, Q., & Li, W. (2015). Self-esteem, social support, and life satisfaction in Chinese parents of children with autism spectrum disorder. *Research in Autism Spectrum Disorders*, 17, 70-77. DOI:10.1016/j.rasd.2015.05.003

Morgan, A., & Haglund, B. J. (2009). Social capital does matter for adolescent Health: Evidence from the English HBSC STUDY. *Health Promotion International*, 24(4), 363-372. DOI:10.1093/heapro/dap028

Nomagtchi, K., & Milkie, M.A (2020). Parenthood and Well-Being: A Decade in Review. *Journal of Marriage and Family*, 82(1):198-223.

Phares, V, Fields, SA, Kamboukos, D. (2008). Fathers' and Mothers' Involvement with Their Adolescents. *Journal of Child and Family Studies* 18(1):1-9, DOI: 10.1007/s10826-008-9200-7

Sadler, J. (2005). Knowledge, attitudes and beliefs of the mainstream teachers of children with a preschool diagnosis of speech/language impairment. *Child Language Teaching and Therapy*, 21(2), 147-163. DOI:10.1191/0265659005ct286oa

Slovik, Y., Goralı, R., Dizitzer, Y., Joshua, B. Z., Kordeliuk, S., Novack, V., & Kraus, M. (2020). Predicting hearing loss in children according to the referrer and referral cause. *International Journal of Pediatric Otorhinolaryngology*, 128, 109685. DOI: 10.1016/j.ijporl.2019.109685

Tucak Junaković, I. (2016). Zbirka psiholoških skala i upitnika: sv. 8. Zadar: Sveučilište u Zadru.

Vasilopoulou, E., & Nisbet, J. (2016). The quality of life of parents of children with autism spectrum disorder: A systematic review. *Research in Autism Spectrum Disorders*, 23, 36-49. DOI:10.1016/j.rasd.2015.11.008

Wilson, L., McNeill, B., & Gillon, G. T. (2016). Inter-professional education of prospective speech-language therapists and primary school teachers through shared professional practice placements. *International Journal of Language & Communication Disorders*, 52(4), 426-439. DOI:10.1111/1460-6984.12281

Wright, J. A., & Kersner, M. (2004). Short-term projects: The STANDARDS fund and collaboration between speech and language therapists and teachers. *Support for Learning*, 19(1), 19-23. DOI:10.1111/j.0268-2141.2004.00313.x

Wong, C. L., Ching, T. Y. C., Cupples, L., Leigh, G., Marnane, V., Button, L., Martin, L., Whitfield, J., & Gunnourie, M. (2018). Comparing parent and teacher ratings of emotional and behavioural difficulties in 5-year old children who are deaf or hard-of-hearing. *Deafness & Education International*, 22(1), 3–26. DOI: 10.1080/14643154.2018.1475956