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Source / Izvornik: **Collegium antropologicum, 2009, 33, 495 - 501**

Journal article, Published version
Rad u časopisu, Objavljena verzija rada (izdavačev PDF)

Permanent link / Trajna poveznica: https://urn.nsk.hr/urn:nbn:hr:257:738483

Coll. Antropol. **33** (2009) 2: 495–501
Original scientific paper

Views of Elementary School Teachers towards Students with Cochlear Implants Inclusion in the Process of Education

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A B S T R A C T

The paper reveals views of teachers in some regular elementary schools in the Republic of Croatia where students with cochlear implants, who are also rehabilitants of SUVAG Polyclinic, are educated. Survey aimed to research the views of teachers towards education. Survey included 98 teachers. Likert type scale was applied in order to identify the views of teachers towards students with hearing impairment. The survey was carried out in May 2007.Data were processed by SPSS for Windows program, version 13. Methods of descriptive statistics were applied to process frequencies of responds on variables for total sample and 3 statistically significant factors emerged by factor analysis. Results of this survey reveal that teachers have positive views towards inclusive education as a process which offers students with cochlear implants the possibility to socialize and achieve intellectual and emotional development. The survey suggests that the way of inclusion enforcement mostly satisfies the criteria specified for successful inclusion.

Key words: *views of teachers, students with hearing impairment and cochlear implants, inclusion*

Introduction

Cochlear implant is a sophisticated hearing device surgically implanted to persons profoundly deaf and unable to accomplish audibility in any other way. Cochlear implant provides hearing while listening and speech should be developed. In order to develop listening, after the cochlear has been implanted, speech and auditory rehabilitation is necessary and it begins after the first fitting of a processor has been performed. [1–2] A recipient is included in an intensive auditory and speech rehabilitation aiming to develop listening and speech as soon as possible to be included in regular education system.

After rehabilitation, students with hearing impairment with cochlear implants are included in regular day nurseries and schools.

Although we intensively and successfully cooperate with regular day nurseries and elementary schools, we still have not thoroughly examined all the conditions of work as well as methods for improving the inclusion of our rehabilitated students.

In this context, the need has come forward to examine the views of elementary school teachers towards inclusion of students with cochlear implants. We were encouraged to do it by recent examinations on views of teachers which intensively started to be examined twenty years ago.

Former examinations

Stančić and his co-operators examined the views of teachers towards children with developmental handicaps in inclusive education.[3–4]

The results revealed that teachers do not have positive views towards children with developmental handicaps in inclusive education.

Teachers expressed more favourable views towards inclusive education of children with physical handicaps, followed by blind and deaf children and most unfavourable views were expressed towards inclusive education of mentally retarded children.

Radovančić analysed views of teachers and special education teachers towards inclusive education of children with hearing impairment.

The results revealed that statistically significant percentage of regular elementary school teachers do not have positive views towards inclusive education of children with hearing impairment. Nevertheless, special ed-

Received for publication June 1, 2008

ucation teachers had more favourable views compared to regular elementary school teachers. Teachers from wider urban area had the most inauspicious views.[5–9]

Uzelac carried out the analysis of regular elementary school teachers' views towards inclusive education of children with hearing impairment.

The research was carried out in Zagreb and Zagreb county. 96 teachers working in classes with children with hearing impairment were examined.

The research revealed that:

- there are significant differences among the views of specialized and class teachers
- educational subjects teachers had more positive views than specialized teachers
- junior teachers (up to 40 years of age) had more positive views than senior ones.[10]

The role of a teacher is of the greatest importance in the process of education as the teacher is not only the person who teaches, but he/she has a significant impact on establishing students' personalities by his/her moral and ethical values. Although there are a lot of definitions of views, the majority emphasize that views are permanent systems of positive or negative evaluation, feelings and tendencies to take pro or con actions – in relation to different objects. Views are not immanent but acquired so they could be changed. With his /her views a teacher can positively or negatively impact on students', parents' or other teachers' views.[11–12]

For children with special educational needs who are going to be included in regular elementary schools it is of extreme importance to be welcomed by well prepared teacher who should create warm and friendly atmosphere in the class.

Targets of research

Targets of research are to reveal the views of teachers towards:

- professional training which extends teachers' knowledge about students with cochlear implants
- success in education of students with cochlear implants
- inclusive education of students with cochlear implants
- relationship of parents and students of the class a student with cochlear implant attends
- cooperation with school professional team

Hypothesis

Following the goals defined by research and considering the results of similar recent research it was the most reasonable in this paper to start from the hypothesis:

- H1 – views of regular elementary school teachers towards inclusive education of students with cochlear implants are mostly unfavourable.

Methods

Subjects

The survey was carried out in 12 elementary schools attended by Polyclinic SUVAG rehabilitants.

Sample of teachers subjected was made on the basis of Polyclinic SUVAG data where data on education of students with cochlear implants are kept.

Subjects and schools were chosen by random aiming to include different regions of the Republic of Croatia.

Survey covered 98 regular elementary school teachers in the Republic of Croatia who work with students with cochlear implants.

Measuring instruments

In order to identify the views of teachers towards students with hearing impairment we applied Likert type scale.

Research which is the subject of this paper was conducted by Questionnaire for identifying views of regular elementary school teachers which was particularly set up for this purpose. Questionnaire consists of 16 variables – Likert type views indicators.

The sample of variables from the area of regular elementary school teachers' views was established on the basis of theoretical assumption on dynamics and interactions of teacher – student, teacher – parents and teacher – school.

Respondents had to choose one of five answers offered to the statement established:

1. I completely agree
2. I mostly agree
3. I can't make a decision
4. I mostly disagree
5. I completely disagree

The answers offered were set up in such a way that the answer under number one always meant the most favourable view while the answer under number five always meant the most unfavourable view of teachers towards the problem stated.

The way of carrying out the survey

The survey was anonymous and in a written form carried out under the supervision of school expert team in May 2007. It can be pointed out that all the schools welcomed the invitation to participate.

Methods of data processing

Data were processed by SPSS for Windows programme, version 13.Using procedures of descriptive statistics respond frequencies were processed on variables for total sample and 3 statistically significant factors were extracted by factor analysis.

Results and Discussion

Factor analysis results

Factor analysis describes covariation structure among several variables with a few latent factors.

By factor analysis we extracted 3 statistically significant factors. Initial factor extraction was carried out by main components method.

The factors received were rotated by oblique Oblimin method in order to get simple structures easier for interpretation. Initial factors extraction was carried out on the basis of the main components.

Table 1 shows data representing three specific roots which use up 62.53% of the common variation. By factor analysis we extracted 3 factors out of 16 variables. Factors received were rotated in oblique Oblimin position. Two matrices came forward by Oblimin rotation: system matrice and structure matrice shown on Tables 2 and 3. Factors were interpreted by structure matrice. Variance percentage of factor 1 is 42.807% of the common variance defined by variables referring to education of students with cochlear implants, development of speech and verbal communication and some socialization elements. Variance percentage of factor 2 is 12.63% of common variance defined by variables referring to knowledge of teachers necessary in work with students with cochlear implants and in cooperation of teachers and school expert teams. Variance percentage of factor 3 is 7, 10% of common variance defined by variables referring to some elements of socialization related to conditions of education of students with cochlear implants.

Table 4 shows that correlations are generally low and are not statistically significant. There is a slightly higher correlation between factors 1 and 3 probably because of their relation to social effects of inclusion.

TABLE 1
EXTRACTED FACTORS

	Extracted factors		
	Characteristic root	% Variance	Cumulative Value
1	6.849	42.807	42.807
2	2.022	12.639	55.446
3	1.137	7.109	62.556
4	0.918	5.739	68.294
5	0.762	4.760	73.054
6	0.698	4.362	77.416
7	0.592	3.702	81.118
8	0.532	3.325	84.443
9	0.464	2.903	87.346
10	0.412	2.575	89.921
11	0.351	2.191	92.112
12	0.330	2.060	94.172
13	0.304	1.899	96.071
14	0.271	1.691	97.762
15	0.201	1.254	99.017
16	0.157	0.983	100.000

TABLE 2
SET (P) COEFFICIENT OF FACTORS ROTATED

	Set (P) coefficient of factors rotated		
	Components		
	S1	S2	S3
1	0.117	0.690	0.180
2	0.751	0.173	0.105
3	0.762	0.094	0.010
4	0.666	0.267	0.001
5	0.680	0.113	0.176
6	–0.823	0.319	0.195
7	0.009	–0.071	0.825
8	0.378	–0.097	0.537
9	0.059	0.601	0.277
10	–0.070	0.853	–0.049
11	0.065	0.790	–0.238
12	0.147	0.233	0.515
13	–0.016	–0.040	0.789
14	–0.669	0.002	–0.144
15	0.654	0.183	0.245
16	0.507	0.094	0.412

TABLE 3
STRUCTURE (S) COEFFICIENT OF FACTORS ROTATED

	Components		
	1	2	3
1	0.347	0.763	0.417
2	0.836	0.360	0.501
3	0.787	0.259	0.391
4	0.723	0.409	0.383
5	0.787	0.304	0.524
6	–0.664	0.196	–0.105
7	0.380	0.150	0.811
8	0.608	0.126	0.688
9	0.317	0.687	0.464
10	0.089	0.825	0.145
11	0.122	0.741	0.002
12	0.437	0.401	0.645
13	0.344	0.166	0.771
14	–0.736	–0.179	–0.457
15	0.808	0.387	0.600
16	0.720	0.311	0.674

TABLE 4
CORRELATION OF FACTORS ROTATED

	Correlation of factors rotated		
Factors	1	2	3
1	1.000	0.213	0.467
2	0.213	1.000	0.265
3	0.467	0.265	1.000

TABLE 5
FREQUENCIES OF RESPONDS ON VARIABLES FOR TOTAL SAMPLE

Variable	1	2	3	4	5	Total
1. I have all the knowledge necessary for work with students with cochlear implants.	1	20	11	42	24	98
%	1.0	20.4	11.2	42.9	24.5	100.0%
2. Inclusion of students with cochlear implant in regular school education is successful and useful.	21	38	21	12	6	98
%	21.4	38.8	21.4	12.2	6.1	100.0%
3. I am satisfied with successful verbal communication with students with cochlear implants.	13	41	16	22	6	98
%	13.3	41.8	16.3	22.4	6.1	100.0%
4. Education of students with cochlear implants in regular schools provides more sucessful speech development.	28	36	19	13	2	98
%	28.6	36.7	19.4	13.3	2.0	100.0%
5. Students with cochlear implants successfully acquire basic data in subject I teach.	20	36	19	18	5	98
%	20.4	36.7	19.4	18.4	5.1	100.0%
6. Students with cochlear implants need additional help in learning and rehabilitation.	48	35	10	5	0	98
%	49.0	35.7	10.2	5.1	0	100.0%
7. Class students accept and have positive views towards a student with cochlear implant.	47	36	13	2	0	98
%	48.0	36.7	13.3	2.0	0	100.0%
8. Inclusion of students with cochlear implants has positive social effects to other students.	45	34	17	2	0	98
%	45.9	34.7	17.3	2.0	0	100.0%
9. I am satisfied with support and cooperation between teachers and school expert team.	24	37	20	10	7	98
%	24.5	37.8	20.4	10.0	7.1	100.0%
10. I am satisfied with professional trainings organized continually and systematically in order to improve work with students with cochlear implants.	3	16	17	31	31	98
%	3.1	16.3	17.3	31.6	31.6	100.0%
11. I am satisfied with cooperation of our elementary school with specialized institutions as it offers support to me/ or a student with cochlear implant.	2	62	13	21	0	98
%	2.0	63.3	13.3	21.4	0	100.0%
12. I am satisfied with cooperation with parents of students with cochlear implants.	26	30	25	10	7	98
%	26.5	30.6	25.5	10.2	7.1	100.0%
13. I am satisfied with positive views of other parents towards a student with cochlear implant.	22	40	34	2	0	98
%	22.4	40.8	34.7	2.0	0	100.0%
14. Students with cochlear implants should be educated in specialized institutions.	7	16	21	21	33	98
%	7.1	16.3	21.4	21.4	33.7	100.0%
15. Education in regular school provides more qualitative and successful education continuation to a student with cochlear implant.	21	42	23	8	4	98
%	21.4	42.9	23.5	8.2	4.1	100.0%
16. Education in regular school provides a student with cochlear implant more successful socialization and life readiness.	34	50	10	2	2	98
%	34.7	51.0	10.2	2.0	2.0	100.0%

Views of teachers towards education success of students with cochlear implants in regular elementary schools

– Views of teachers on successfully acquired teaching material by students with cochlear implants

We can be satisfied with the views of teachers as 5.1% of them consider that students successfully acquire teaching materials from all the subjects.

5.1% of teachers think that students have fairly big difficulties in acquiring teaching materials.

18.4% of respondents mostly disagree with the statement and 19.4% do not have an exact view towards that issue.

– Views of teachers towards students' with cochlear implants needs for extra help in learning and rehabilitation

Most of the teachers, about 49.0% agree with the statement that students with cochlear implants need permanent rehabilitation and help in the process of learning. 35.7% of teachers mostly agree with the statement.

0% of respondents completely agree with the statement. 5.1% of them think that students with cochlear implants do not need rehabilitation, support and help in the process of learning while 10.2% of teachers do not have an exact view towards this statement.

– Views of teachers on successful speech development of students with cochlear implants

Most of the respondents have positive views towards the statement that education of students with cochlear implants in regular schools provides successful speech development. 28.6% of respondents completely agree, and 36.7% partially agree with the statement. 19.4% of respondents have no exact view towards the statement. 13.3% of respondents partially disagree while 2.0% of respondents completely disagree.

– Views of teachers towards successful verbal communication with students with cochlear implants

55.1% of respondents consider verbal communication successful. 22.4% mostly disagree with the statement and 6.1% completely disagree.

Views of teachers towards students inclusion in regular elementary schools

– Views of regular school teachers towards inclusion of students with cochlear implants

Teachers expressed exact views towards inclusion of students with cochlear implants. 21.4% have completely positive views, 38.8% partially agree with the statement of successful and profitable inclusion of students with cochlear implants. Only 6.1% of respondents do not have positive views towards successful inclusion and 12.2% partially disagree with the statement while 21.4% of respondents do not have an exact view.

– Views of regular school teachers towards relation between inclusion and positive social effects

Extremely high percentage of teachers agrees that inclusion has positive social effects on class students. 80.6% of teachers consider inclusion of students with hearing impairment useful for other class students as it increases socialization of students. 2.0% of teachers partially disagree with the statement.

It is indicative that none of the respondents opposed the statement.

Similar results derived in relation to socialization of students with cochlear implants.

86.3% of teachers recognize the greatest inclusion value in socialization of students with hearing impairment.2.0% of teachers do not agree with the statement with reference to 2.0% who partially disagree with the statement; consequently the rest of 4.0% of teachers have mostly negative views towards the effects of inclusion. 10.2% have no exact view towards this statement.

– Views of teachers towards successful continuation of education of students with cochlear implants

The significant number of teachers has an opinion that students with cochlear implants are successfully and qualitatively educated in secondary schools and colleges. Only 4.1% of respondents completely disagree with the statement that education of students with cochlear implants in regular schools is correlated with more qualitative and successful continuation of education. 8.2% of respondents partly disagree with the statement. 21.4% completely agree while 42.9% partially agree with the statement. These numbers show positive perception of inclusion and therefore on successfully set up goals in education and rehabilitation of students with cochlear implants.

– Views of teachers towards education of students with cochlear implants in specialized institutions

Only 7.1% of teachers agree with the statement that students with cochlear implants should be educated in specialized institutions, 33.7% completely disagree with it and 21.4% mostly disagree. There is a relatively high number of teachers, about 21.4% who do not have an exact view towards this statement.

– Cooperation between schools and specialized institutions

We were interested to find out how much the teachers are satisfied with the cooperation between schools and specialized institutions which could help in solving expert issues arising during the school year.

Only 2.0% of teachers have positive views towards the statement: »I am satisfied with cooperation between our elementary schools and specialized institutions as it offers support to me / or a student with cochlear implant in work«; 63.3% partially agree and 0% completely disagree while 21.4% mostly disagree with the statement.

There is a relatively high number of teachers, 13.3% who do not have an exact view towards this statement.

Views of teachers towards expert knowledge and professional training

– Views of teachers towards knowledge necessary in work with students with cochlear implants

The results of the study show that the highest number of respondents considers not to have sufficient knowledge necessary for work with students with cochlear implants.

Only 1.0% of teachers think they have all the sufficient knowledge while 67.4% of respondents do not agree or mostly disagree with the statement.

– Views of teachers towards professional training

3.1% of teachers is completely satisfied with professional training, 16.3% of teachers mostly agree with the statement while 63.2% of respondents are dissatisfied with professional training. The significant number of teachers, about 17.3% does not know if professional training meets their needs.

Teachers express views that professional trainings do not mostly meet their needs.

Views of teachers towards their cooperation with school expert team

The large percentage, 62.3%, of respondents is completely or mostly satisfied with the cooperation with school expert team.

10% of teachers are not completely satisfied with this cooperation. 7.1% of respondents are dissatisfied with cooperation of teachers and school expert team. 20.4% of respondents could not decide what view to express towards cooperation with school expert team.

Views of teachers towards the relationship student – student and parent – student

– Views of teachers towards the relationship class students – a student with cochlear implant

Teachers think that class students have positive attitudes towards students with cochlear implants. It reveals that 48.0% of teachers completely agree with the statement. 36.7% partially agree while 13.3% of respondents cannot decide on attitudes of class students towards a student with cochlear implant. 2% mostly do not keep positive view while none of them have completely negative view towards that statement.

– Views of teachers towards the relationship of class students' parents towards a student with cochlear implant

High percentage of teachers has positive views towards the relationship of class students' parents towards a student with cochlear implant.

40.8% of teachers are mostly satisfied with positive attitudes of class students' parents towards a student with cochlear implant. 22.4% are completely satisfied with the positive attitudes of parents.

2% of teachers are mostly dissatisfied with attitudes of parents towards students with cochlear implants. None of the teachers have completely negative views.

The high number of respondents, 34.7%, cannot decide what view the parents have towards a student with cochlear implant.

– Views of teachers towards their cooperation with parents of students with cochlear implants

Teachers have positive views towards their cooperation with parents of students with cochlear implants. 26.5% of them have completely positive views towards the statement, 30.6% partially agree with it. 7.1% of teachers completely disagree with the statement, 25.5% of teachers do not have an exact view towards the statement.

Set 1 represents mostly positive views, set 2. represents neutral views, set 3. represents mostly negative views of teachers towards students with cochlear implants education.

Having examined the frequencies of responses it was concluded that regular elementary school teachers keep mostly positive views towards students with cochlear implants education. The teachers express the most favourable views towards social effects of inclusion.

Teachers expressed mostly negative views towards three statements related to:

– knowledge that teachers have in work with students with cochlear implants
– professional training of teachers
– education of students with cochlear implants in specialized schools

Hypothesis verification

On the basis of the results obtained, hypothesis H 1 is discarded and we conclude – views of regular elementary

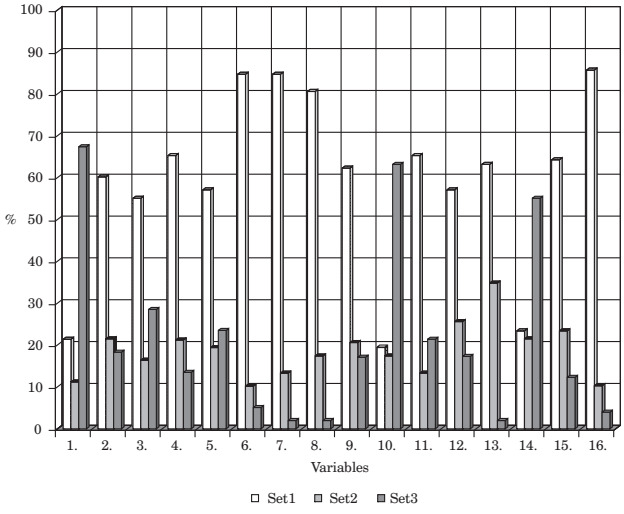

Fig. 1. Ratio of positive, negative and neutral views of regular elementary schools teachers towards education of students with cochlear implants.

school teachers towards students with cochlear implants inclusion are mostly positive.

Conclusion

This research aimed to identify the views of regular elementary school teachers towards students with cochlear implants who attend schools included in this survey. The research reveals that teachers consider the students successfully acquire the teaching material, but that they also need additional help in education and rehabilitation.

Research proved that teachers keep positive attitude on successful and satisfying quality of complete education of students with cochlear implants.

Education in specialized institutions is not adequate form of education for students with cochlear implants.

Teachers mostly agree with the statements related to positive effects of inclusion as socialization of students with hearing impairment and other students. The higher number of teachers think there they do not have sufficient knowledge on cochlear implant as well as on specific aspects in teaching students with cochlear implants.

More than a half of teachers are not satisfied with professional training therefore they would like to establish continuous cooperation with specialized institutions in order to be offered all the necessary knowledge and support.

The high number of neutral views is indicative and it reveals the lack of knowledge on the issue..

Cooperative and responsible institutions could make an impact on the respondents who do not have exact views towards statements by education of teachers and additional efforts.

REFERENCES

1. PAŠKVALIN M, Cochlear implant – Verbotonal approach (SUVAG Polyclinic, Zagreb, 2006). — 2. RADOVANČIĆ B, Defectology, 21 (1985) 39. — 3. STANČIĆ V, Inclusive education of children with developmental handicaps – Theoretical problems of research – Report no. 1, (Faculty of Defectology, Zagreb, 1982) — 4. STANČIĆ V, Special Education Theory and Practice, 3 (1984) 119. — 5. RADOVANČIĆ B, Defectology, 21 (1985) 39. — 6. RADOVANČIĆ B, Defectology, 30 (1994) 33. — 7. RADOVANČIĆ B, Defectology, 30 (1994) 103. — 8. RADOVANČIĆ B, Defectology, 30 (1994) 9. — 9. RADOVANČIĆ B, (Faculty of Defectology, Zagreb, 1995). — 10. UZELAC M, Subjective hypothesis of inclusive education of children with hearing impairment. MS Thesis [In Croat] (Faculty for Defectology, Zagreb, 1989). — 11. DULČIĆ A, Views of mothers towards children with hearing impairment, PhD Thesis, [In Croat] (Faculty of Special Education and Rehabilitation, Zagreb, 1999). — 12. DULČIĆ A, KONDIĆ LJ, Children with hearing impairment, (Alineja, Zagreb, 2002).

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STAVOVI UČITELJA REDOVNIH OSNOVNIH ŠKOLA PREMA INTEGRIRANIM UČENICIMA S UMJETNOM PUŽNICOM

SAŽETAK

U radu je prikazana analiza stavova učitelja nekih osnovnih redovnih škola Republike Hrvatske u kojima se školuju učenici s ugrađenom umjetnom pužnicom koji su ujedno i rehabilitanti Poliklinike SUVAG. Ispitivanje je usmjereno na istraživanjem stavova učitelja prema školovanju. Ispitivanjem je obuhvaćeno 98 učitelja. Radi utvrđivanja stavova učitelja prema učenicima sa slušnim oštećenjem primijenili smo skalu Likertova tipa. Ispitivanje je provedeno tijekom svibnja 2007. Podaci su obrađeni programom SPSS for Windows, verzija 13. Postupcima deskriptivne statistike obradili smo frekvencije odgovora na varijablama za ukupni uzorak a faktorskom analizom izlučili smo 3 statistički značajna faktora. Rezultati ovog ispitivanja su pokazali da učitelji imaju pozitivne stavove prema integraciji kao procesu koji omogućava učenicima s umjetnom pužnicom socijalizaciju i postizanje intelektualnog i emocionalnog razvoja. Ispitivanje je pokazalo da način provođenja integracije uglavnom zadovoljava zadanim kriterijima bez kojih nama uspješne integracije.