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FAKULTET ZA SPECIJALNU  
EDUKACIJU I REHABILITACIJU

UNIVERSITY OF BELGRADE  
FACULTY OF SPECIAL EDUCATION  
AND REHABILITATION

12.

MEĐUNARODNI  
NAUČNI SKUP  
„SPECIJALNA  
EDUKACIJA I  
REHABILITACIJA  
DANAS”

12<sup>th</sup>

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SCIENTIFIC  
CONFERENCE  
“SPECIAL  
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TODAY”

ZBORNİK REZIMEA

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Beograd, Srbija  
27–28. oktobar 2023.

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UNIVERSITY OF BELGRADE – FACULTY OF SPECIAL EDUCATION AND REHABILITATION

Beograd, 2023.  
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SPECIJALNU EDUKACIJU I REHABILITACIJU

UNIVERSITY OF BELGRADE – FACULTY OF  
SPECIAL EDUCATION AND REHABILITATION

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PLENARNA IZLAGANJA  
PLENARY PRESENTATIONS

## EMERGING TRENDS IN INCLUSIVE EDUCATION: WHAT DOES THE FUTURE HOLD?\*

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**Introduction:** Inclusive education tends to be viewed as a global education policy that is not bound by nation-state borders, allowing some common trends to emerge. At the same time, the development of inclusive education is a process that is always embedded in the specific cultural, and historical context, sometimes leading to endemic issues and solutions. Therefore, the development of inclusive education must take into account factors within schools, the educational system, and the global context, which is the thinking that informs this paper.

**Aim:** The objective of the paper is to provide an overview of emerging global trends in inclusive education and at the same time discuss these trends in the context of the educational system in Serbia.

**Method:** In the first step, I have undertaken the mapping review of recent literature to identify emerging trends in inclusive education. In the second step, the results of several studies on inclusive education in Serbia are used to discuss the possible development of the identified trends in the context of Serbia.

**Results:** The results of the mapping review indicate horizontal and vertical expansion of inclusive education policies and practices. The horizontal expansion includes the transition from identity to intersectionality of identities, from individual to community, from specialists to multidisciplinary teams, from learner-centered approach to whole-school approach. Vertical expansion refers to enhancing inclusivity beyond compulsory and beyond formal education. The similar patterns could be observed in research findings on inclusive education in Serbia.

**Conclusion:** How these global trends are translated in educational policy and practice depends on the community's ability to interpret them in their specific context and respond by adapting existing and creating new knowledge and practice. Therefore, acknowledging the past experiences, working in present, and developing collective futures become highly important for development of inclusive education in the specific country context.

**Keywords:** *inclusive education, policy development, whole-school approach, intersectionality*

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## MERGING THE POWER OF PROFESSION AND EXPERIENCE: EARLY INTERVENTION SERVICES FOR CHILDREN WITH MULTIPLE DISABILITIES AND VISUAL IMPAIRMENTS

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**Introduction:** It is well known that early intervention is crucial for supporting young children with special needs and their families. If an infant is born with multiple disabilities, providing early intervention services becomes an inevitable necessity. Since children with multiple disabilities, especially the ones who have co-occurring conditions such as visual impairments, have unique challenges and needs, early intervention programs should be planned and implemented rigorously.

**Aim:** In this paper, the author indicates the common delivery systems of the early intervention services and the importance of the transdisciplinary approach.

**Method:** The author presents the essential outputs of ErISFaVIA (Early Intervention Services for Families with Children with Vision Impairment and Additional Disabilities) Project, which includes 10 institutions from six partner countries.

**Results:** The project, which was funded by European Union Erasmus+, enables both practitioners and academics/researchers to combine and share their knowledge and experience in order to provide qualified and efficient early intervention services to young children with multiple disabilities and visual impairments and their families.

**Conclusion:** The author points out the fact that, apart from the concrete outputs of the project, each institution has benefited from this great collaboration of experience and professionalism.

**Keywords:** *children with multiple disabilities and visual impairments, early intervention services, Erasmus+ project, ErISFaVIA*

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## UNDERSTANDING GAMBLING RELATED HARM – WHAT IS IMPORTANT FOR RESPONSIBLE GAMBLING POLICIES?

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**Introduction:** The gambling industry is one of the fastest-growing industries in the world. In the Balkan region, over the past 20 years, gambling market has significantly changed and liberalized, increasing its availability and accessibility. Consequently, it contributed to more psychosocial risks in the population.

**Aim:** The author discusses how the growing number of different gambling venues has led to an increase of gambling-related problems both among adults and minors, despite the legal prohibition of gambling accessibility to persons under the age of eighteen.

**Method:** This presentation will focus on research results about the various aspects of gambling-related harm within a variety of scientific projects conducted in the Republic of Croatia over the past 15 years. Special emphasis will be put on possibilities to elicit better evidence-based responsible gambling policies with the aim to ensure public protection from developing gambling disorders. Presentation will also include an overview of developed prevention and treatment interventions that show promising results but are still conducted under the burden of an extremely risky environment, strong gambling advertising, and social acceptance of gambling in our region.

**Results:** Even though the gambling industry is an ‘addiction risk industry,’ together with the alcohol and tobacco industry, legal acts often do not provide the same level of public protection and elements of prohibition as compared to the latter.

**Conclusion:** Responsible gambling policies that aim at minimising all gambling-related harm are insufficient and inadequate.

**Keywords:** *gambling, gambling harm, addiction, responsible gambling, social policies, interventions*

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## TRANSLATING DEVELOPMENTAL NEUROSCIENCE TO MAKE A CASE FOR EARLY CHILDHOOD INTERVENTION

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**Introduction:** Neuroscience research has provided valuable insights into the development of the human brain. Neurobiological information about brain function and structure has been used to promote strategies to optimize child development and potentially provide an evidence base for early childhood intervention programs and policies.

**Aim:** This review examines the implications of findings from the field of developmental neuroscience for evaluating and improving these programs.

**Method:** The author discusses how advances in our understanding of neurobiological issues, such as developmental vulnerability of axonal pathways, synaptogenesis and synaptic pruning, sensitive periods, the effects of an enriched environment, and neural plasticity, might inform policy and practice in the field.

**Results:** There are many challenges in trying to improve early childhood intervention programs and parental practices using insights from neuroscience and it is a necessary step, toward an ethically responsible approach, to become aware of the potential pitfalls.

**Conclusion:** The questions on what we do as professionals in early childhood intervention should be rethought on a continuum of what we know and what we may learn from developmental neuroscience.

**Keywords:** *early intervention, translational neuroscience, early childhood policy, parental practice*

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## PRIMENA SAVREMENIH METODA MOLEKULARNE GENETIKE U PRAKSI

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**Uvod:** Razvoj novih metoda molekularne genetike, naročito u poslednje dve decenije, doveo je do ogromnog napretka na polju medicine i omogućio sveobuhvatnije prenatalno i postnatalno dijagnostikovanje naslednih bolesti i drugih poremećaja, kao i preimplantaciono testiranje.

**Cilj:** Cilj rada je da se prikažu savremene metode molekularne genetike i njihova primena u dijagnozi naslednih bolesti i razvojnih poremećaja.

**Metode:** Pregledom relevantne literature stečen je uvid u dosadašnji razvoj molekularno-genetičkih metoda i njihove praktične primene.

**Rezultati:** Hromozomski *microarray* predstavlja analizu svih hromozoma u genomu koja, zahvaljujući tehnologiji mikročipa, omogućuje detekciju hromozomskih mikroleucija i mikroduplikacija, kao i promena u broju kopija, samo u jednoj reakciji. Ova metoda našla je primenu u svim oblastima kliničke genetike, a posebno u otkrivanju genomskih promena kod pacijenata sa intelektualnim poteškoćama, kašnjenjem u razvoju, poremećajima iz spektra autizma i kongenitalnim anomalijama. Genski *microarray* takođe je baziran na tehnologiji mikročipa, a u zavisnosti od tipa DNK-čipa koji se primenjuje, koristi se za detekciju mutacija i DNK varijacija na nivou čitavog genoma, ili za proučavanje genske ekspresije. Brzi razvoj biotehnologije i bioinformatike omogućio je i istovremenu analizu velikog broja gena putem paralelnog (dubokog) sekvenciranja, poznatog kao nova generacija metoda za sekvenciranje DNK. Ovom tehnologijom otkrivaju se već poznate genske varijante, one nove, ali i prisutnost predispozicije. Danas se u kliničkoj praksi primenjuju različito kreirani paneli gena za postnatalnu dijagnozu monogenih, ali i multifaktorskih bolesti. Posebno se izdvajaju paneli „kliničkog egzoma“ sa preko 6.000 gena, celog egzoma (oko 22.000 gena) ili celog genoma.

**Zaključak:** Savremeno doba obeležio je razvoj i usavršavanje metoda molekularne genetike za brzo i preciznije dijagnostikovanje naslednih bolesti i razvojnih poremećaja, što daje nov pogled na mogućnosti prenatalnog, postnatalnog i preimplantacionog genetičkog testiranja.

**Ključne reči:** *nasledne bolesti, molekularne metode, dijagnoza*

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## APPLICATION OF MODERN METHODS OF MOLECULAR GENETICS IN PRACTICE

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**Introduction:** The development of new methods of molecular genetics, especially in the last two decades, has led to enormous progress in the field of medicine and enabled more comprehensive prenatal and postnatal diagnosis of hereditary diseases and other disorders, as well as preimplantation testing.

**Aim:** The aim of the work is to present modern methods of molecular genetics and their application in the diagnosis of hereditary diseases and developmental disorders.

**Methods:** Having reviewed the relevant literature, insight was gained into the current development of molecular genetic methods and their practical application.

**Results:** Chromosome microarray is an analysis of all chromosomes in the genome, which, thanks to microchip technology, enables the detection of chromosomal microdeletions and microduplications, as well as changes in the number of copies, in just one reaction. This method has found application in all areas of clinical genetics, and especially in the detection of genomic changes in patients with intellectual disabilities, developmental delays, autism spectrum disorders and congenital anomalies. The gene microarray is also based on microchip technology, and depending on the type of DNA chip used, it is used to detect mutations and DNA variations at the level of the entire genome or to study gene expression. The rapid development of biotechnology and bioinformatics has enabled the simultaneous analysis of a large number of genes through parallel (deep) sequencing, known as a new generation of DNA sequencing methods. This technology detects already known gene variants, new ones, as well as the presence of a predisposition. Today, in clinical practice, differently designed gene panels are used for postnatal diagnosis of monogenic and multifactorial diseases. Particularly noteworthy are the "clinical exome" panels with over 6,000 genes, the whole exome (about 22,000 genes) or the whole genome.

**Conclusion:** Modern times have marked the development and improvement of molecular genetics methods for quick and more accurate diagnosis of hereditary diseases and developmental disorders, which gives a new perspective on the possibilities of prenatal, postnatal and preimplantation genetic testing.

**Keywords:** *hereditary diseases, molecular methods, diagnosis*

SPECIFIČNI DOMENI REHABILITACIJE  
SPECIFIC REHABILITATION DOMAINS



## PREDIKTORI PODRŠKE ZA DJECU SA POREMEĆAJEM IZ SPEKTRA AUTIZMA U AKTIVNOSTIMA SVAKODNEVNOG ŽIVOTA

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**Uvod:** Poremećaj iz spektra autizma (PSA) je neurorazvojni poremećaj koji zahtijeva cjeloživotnu podršku. Djeci sa PSA potrebna je podrška za participaciju u društvu i uopće životu. Pružanje podrške u svakodnevnom životu ovisi od težine autizma.

**Cilj:** Cilj ovog istraživanja je utvrditi kako težina autizma može odrediti intenzitet podrške kod djece sa PSA predškolske dobi.

**Metode:** Uzorak je obuhvatio 36 djece sa PSA iz predškolskih specijalizovanih ustanova. Starosna dob djece u uzorku kretala se od pet do šest godina ( $AS=62,67$ ;  $SD=6,82$ ). Prema spolu uzorak čini 23 dječaka (63,88%) i 13 djevojčica (36,11%). U procjeni su korišteni slijedeći instrumenti: nivo pružanja podrške ispitan je pomoću Skale intenziteta podrške za djecu, a težina autizma pomoću Gilijamove skale za ocjenu autizma.

**Rezultati:** Dobijeni rezultati pokazali su da nijedno dijete sa PSA nema potrebu za posebnom medicinskom podrškom. U bihevioralnom području potreba za podrškom iskazuje se u području prevencije samopovređivanja ( $N=9$ ; 25%), pika poremećaja ( $N=4$ ; 11,11%) i lutanja ( $N=12$ ; 33,33%). Ne postoji statistički značajna razlika rezultata u intenzitetu podrške kod djece različitog spola. Djeca sa teškim PSA zahtijevaju veći intenzitet podrške u odnosu na djecu sa umjerenim PSA u području aktivnosti u kući ( $t=2,96$ ;  $p=0,00$ ).

**Zaključak:** Istraživanje pokazuje da djeci sa PSA treba posvetiti više pažnje u bihevioralnom području, i to kod prevencije samopovređivanja, pika poremećaja i lutanja. Djeca sa PSA predškolske dobi zahtijevaju veći intenzitet podrške u odnosu na težinu autizma u području aktivnosti života u kući.

**Ključne riječi:** *autizam, intenzitet podrške, aktivnosti svakodnevnog života*

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## PREDICTORS OF SUPPORT FOR CHILDREN WITH AUTISM SPECTRUM DISORDER IN EVERYDAY LIFE ACTIVITIES

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**Introduction:** Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder that requires lifelong support. Children with ASD need support to participate in society and life in general. Providing support in daily life depends on the severity of autism.

**Aim:** The aim of this study was to determine how the severity of autism can define the intensity of support in preschool children with ASD.

**Method:** The sample included 36 children with ASD from preschool specialized institutions. The age of the children in the sample ranged from five to six years ( $M=62.67$ ;  $SD=6.82$ ). With regard to gender, the sample consists of 23 boys (63.88%) and 13 girls (36.11%). The following instruments were used in the assessment: The level of support was examined using the Support Intensity Scale–Child Version, and the severity of autism using the Gilliam Autism Rating Scale–3.

**Results:** The obtained results showed that no child with ASD needs special medical support. In the behavioral area, the need for support is expressed in the area of prevention of self-harm (25%), pica disorder (11.11%), and wandering (33.33%). There is no statistically significant difference in the intensity of support in children of different genders. Children with severe ASD require more intensity of support than children with moderate ASD in the area of home life activities ( $t=2.96$ ;  $p=0.00$ ).

**Conclusion:** Research shows that children with ASD need more attention in the behavioral area. Preschool children with ASD require a greater intensity of support in relation to the severity of autism in the area of home life activities.

**Keywords:** *autism, support intensity, activities of daily living*

## POVEZANOST PROBLEMA U PONAŠANJU I STEPENA RAZVOJA KOMUNIKACIJE OSOBA SA POREMEĆAJIMA IZ SPEKTRA AUTIZMA

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**Uvod:** Osobe sa poremećajima iz spektra autizma (PSA) često ispoljavaju različite vidove maladaptivnog ponašanja zbog nedostatka strategija i tehnika komunikacije koje bi omogućile da dobiju šta žele u određenom trenutku.

**Cilj:** Ciljevi ovog istraživanja su da se utvrdi da li postoji povezanost između ispoljavanja problema u ponašanju i stepena razvoja komunikacije dece i adolescenata kod kojih je dijagnostikovana PSA, kao i da se utvrde prediktori problema u ponašanju kod ove populacije.

**Metode:** Uzorak istraživanja obuhvatio je 43 ispitanika kod kojih je dijagnostikovana PSA. Stepenu prisustva problema u ponašanju utvrđen je primenom Inventara problema u ponašanju (Behavior Problems Inventory, Rojahn et al., 2002), dok je stepen razvoja komunikacije ispitanika utvrđen primenom VB Mapp skale (Verbal Behavior Milestones Assessment and Placement – VB Mapp, Sundberg, 2008). Prikupljeni su i podaci o ispitanicima koji se odnose na pol, uzrast, prisustvo intelektualne ometenosti (IO), stepen IO, tip školovanja, stepen PSA, prisustvo poremećaja spavanja i uzimanje medikamentne terapije.

**Rezultati:** Nalazi ukazuju da postoji statistički značajna korelacija između prisustva problema u ponašanju i stepena razvoja komunikacije. Osobe sa niskofunkcionalnim PSA imaju više problema u ponašanju u odnosu na one sa visokofunkcionalnim PSA. Kao najveći prediktori problema u ponašanju kod uzorka ističu se prisustvo IO i stepen IO.

**Zaključak:** Dobijeni rezultati ukazuju na potrebu za razvijanjem veština komunikacije kod dece sa PSA od najranijeg uzrasta radi prevencije problema u ponašanju. U zaključnom delu data su ograničenja istraživanja, kao i preporuke za implementaciju budućih istraživanja.

**Ključne reči:** *poremećaji iz spektra autizma, problemi u ponašanju dece i mladih sa poremećajima iz spektra autizma, komunikacija dece i mladih sa poremećajima iz spektra autizma*

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## THE RELATIONSHIP BETWEEN BEHAVIORAL PROBLEMS AND THE DEGREE OF COMMUNICATION DEVELOPMENT OF PERSONS WITH AUTISM SPECTRUM DISORDERS

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**Introduction:** People with Autism Spectrum Disorder (ASD) often exhibit various types of maladaptive behavior due to lack of communication that refers to requesting a desired object or activity.

**Aim:** Goals of this research is to determine whether there is a connection between behavioral problems and the degree of communication development of children and adolescents diagnosed with ASD, as well as to determine predictors of behavioral problems in this population.

**Method:** The sample consisted of 43 subjects diagnosed with ASD. The degree of presence of behavioral problems was determined using the Behavior Problems Inventory (Rojahn et al., 2002), while the level of development of the respondent's communication was determined using the VB Mapp scale (Verbal Behavior Milestones Assessment and Placement – VB Mapp, Sundberg, 2008). Data were also collected on the subjects related to gender, age, presence of intellectual disability (ID), degree of ID, type of education, level of ASD, presence of sleep disorders and medication intake.

**Results:** It was found that there is a statistically significant correlation between the presence of behavioral problems and the level of communication development. People with low-functioning ASD have more behavioral problems than those with high-functioning ASD. The presence of ID and the degree of ID are the biggest predictors of behavioral problems in the sample.

**Conclusion:** The obtained results indicate the need to develop communication skills in children with ASD from the earliest age, in order to prevent behavioral problems. In the concluding part, limitations of the research are given, as well as recommendations for the implementation of future research.

**Keywords:** *autism spectrum disorder, behavioral problems of children and adolescents with autism spectrum disorder, communication of children and adolescents with autism spectrum disorder*

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## EFFECTIVENESS OF ESDM TREATMENT IN CHILDREN WITH AUTISM SPECTRUM DISORDER

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**Introduction:** In the last decade, the incidence of Autism Spectrum Disorders (ASD) has increased and the National Guidelines recognize the importance of early diagnosis and management. Scientific literature recognizes the Early Start Denver Model (ESDM) as one of the valid models for early intervention in Autism.

**Aim:** The aim of the study is to verify the effectiveness and validity of ESDM treatment in children with a diagnosis of ASD.

**Method:** The present study involved 28 children under the age of 72 months diagnosed with ASD in charge of the Neuropsychiatry Service in FVG Region and subjected to ESDM interventions over a period of 12 months. At diagnosis (t0) ADOS 2, Bayley III scale, Leiter II, Vineland II scale were administered, and an observation was performed according to the ESDM model with the relative checklist. Treatment goals were shared with parents prior to interventions. A comparable sample of children diagnosed with ASD were evaluated with the same instruments and undertook a non-ESDM rehabilitation program for the same 12-month period. At the end of the 12 months (t12), the participants of the two groups were evaluated and the results were compared. A satisfaction questionnaire was administered to the parents after the treatment.

**Results:** This study highlighted the improvement in ESDM group compared to the control group not only in specific areas impaired by ASD, but also in expressive communication, cognition, and play skills.

**Conclusion:** The results, albeit in such a small sample, suggest the validity of the ESDM in the treatment of ASD, also in terms of sustainability for the parents as it emerged from the satisfaction questionnaire.

**Keywords:** *ESDM, autism, effectiveness*

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## VAŽNOST KOMUNIKATIVNOSTI SREDNJOŠKOLACA OŠTEĆENOG VIDA PROCIJENJENE OD STRANE NJIHOVIH RODITELJA

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**Uvod:** Važan faktor rehabilitacije adolescenata oštećena vida je područje socijalnih vještina za koje je utvrđeno da su slabije razvijene zbog nedovoljnog broja socijalnih kontakata i velikog broja negativnih socijalnih iskustava, te zbog nemogućnosti vizualne kontrole u situacijama usporedbe s videćim vršnjacima. Deficit izvođenja socijalnih vještina stvara velike poteškoće u uključivanju u školsku, radnu i životnu sredinu. Područje komunikativnosti, kao dijela socijalnih vještina, ima važnu ulogu u prevladavanju poteškoća s kojima su suočeni adolescenti oštećena vida.

**Cilj:** Cilj ovog istraživanja je utvrditi kako roditelji adolescenata procjenjuju važnost izvođenja socijalnih vještina u području komunikativnosti.

**Metode:** U istraživanju je sudjelovalo devet roditelja učenika (45%) i 11 roditelja učenica (55%), ukupno 20 roditelja (N=20) učenika oštećena vida srednjoškolskog uzrasta. Roditelji su procjenjivali socijalne vještine svoje djece u području komunikativnosti. Istraživanjem su obuhvaćeni roditelji učenika i učenica sva četiri razreda srednje škole Centra za odgoj i obrazovanje „Vinko Bek” u Zagrebu. Roditeljska percepcija važnosti komunikativnosti, kao dijela socijalnih vještina, ispitana je dijelom instrumenta Social Skills Improvement System; Parent Form (SSIS, Gresham i Elliott, 2008) – prerađeno izdanje instrumenta Social Skills Rating System (SSRS, Gresham i Elliott, 1990), subskalom procjene važnosti vještina komunikativnosti. Dobiveni rezultati su obrađeni kvantitativnom metodologijom, modelom robustne diskriminacijske analize ROBDIS.

**Rezultati i zaključak:** Prema dobivenim rezultatima nije se pokazala razlika u procjeni važnosti izvođenja vještina komunikativnosti između djevojčica i dječaka, ali su roditelji procijenili da postoji razlika u važnosti izvođenja vještina komunikativnosti između slijepo i slabovidne djece. Procijenili su da je slijepoj djeci važnije imati veće vještine komunikativnosti od slabovidne djece. Majke su dale veću važnost izvođenju vještina komunikativnosti od očeva.

**Ključne reči:** *roditelji slijepih i slabovidnih učenika, socijalne vještine, komunikativnost*

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## THE IMPORTANCE OF COMMUNICATIVENESS OF SECONDARY SCHOOL STUDENTS WITH VISUAL IMPAIRMENTS – ASSESSED BY THEIR PARENTS

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**Introduction:** An important factor in the rehabilitation of visually impaired adolescents is the area of social skills, which are less developed due to an insufficient number of social contacts and a large number of negative social experiences, due to the impossibility of visual control in situations of comparison with sighted peers. The deficit in the performance of social skills creates great difficulties in inclusion in the school, work, and living environment. The field of communication, as part of social skills, plays an important role in overcoming the difficulties faced by visually impaired adolescents.

**Aim:** This research aimed to determine how parents of adolescents assess the importance of performing social skills in the field of communication.

**Method:** Nine parents of male students (45%) and 11 parents of female students (55%), and a total of 20 parents (N=20) of visually impaired students of secondary school age participated in the research. Parents assessed their children's social skills in the area of communication. The research included parents of male and female students of all four grades of the “Vinko Bek” Center for Education in Zagreb. Parental perception of the importance of communication as a part of social skills was examined using a part of the Social Skills Improvement System instrument; Parent Form (SSIS, Gresham and Elliott, 2008) – a revised version of the Social Skills Rating System instrument (SSRS, Gresham and Elliott, 1990), a subscale assessing the importance of communication skills. The obtained results were processed using the quantitative methodology, the robust discriminant analysis model ROBDIS.

**Results and conclusion:** According to the obtained results, there was no difference in the assessment of the importance of performing communication skills between girls and boys, but parents estimated that there was a difference in the importance of performing communication skills between blind and visually impaired children. They estimated that it is more important for blind children to have greater communication skills than visually impaired children. Mothers gave more importance to performing communicative skills than fathers.

**Keywords:** *parents of blind and partially sighted students, social skills, communication skills*

## UTICAJ AUDITIVNE REHABILITACIJE NA EFIKASNOST SLUŠNE AMPLIFIKACIJE KOD ODRASLIH KORISNIKA\*

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**Uvod:** Oštećenje sluha kod odraslih osoba je hronično stanje koje u ozbiljnoj meri može uticati na komunikaciju, kvalitet društvenog života, profesionalnu efikasnost, nivo samopouzdanja i zadovoljstva, kao i na promene u kognitivnom funkcionisanju osobe. U Srbiji briga o sluhu i slušnom zdravlju predstavlja deo programa zdravstvene zaštite. Kada su u pitanju odrasle osobe, ne postoji strateški pristup u pružanju podrške, kao ni programi rehabilitacije za oštećenje sluha koje je stečeno u odraslom životnom dobu. Ovaj rad proistekao je iz pilot-projekta koji ima za cilj uvođenje Protokola auditivne rehabilitacije za odrasle korisnike amplifikacije u redovnu surdološku praksu tokom početnog perioda njene upotrebe.

**Cilj:** Cilj istraživanja je da se sistematičnom primenom vežbi iz navedenog protokola utvrdi uticaj auditivne rehabilitacije na efikasnost korišćenja slušne amplifikacije, sveukupno zadovoljstvo korisnika i dodatnu motivaciju za korišćenje amplifikacije.

**Metode:** Istraživanje je sprovedeno u okviru kompanije koja se bavi distribucijom i podešavanjem slušnih aparata. Uzorak istraživanja činilo je dvadeset odraslih osoba, starosti od 40 do 70 godina, koji su na dobrovoljnoj bazi bili uključeni u vežbe auditivne rehabilitacije.

**Rezultati:** Rezultati istraživanja ukazuju na značajan napredak u efikasnosti slušanja putem amplifikacije kod korisnika koji su učestvovali u procesu auditivne rehabilitacije tokom perioda od tri meseca (provera u tri tačke merenja), neposredno nakon nabavke slušne amplifikacije. Ispitanici su u proseku izrazili visok stepen zadovoljstva i motivacije za korišćenje slušne amplifikacije.

**Zaključak:** Na osnovu sprovedenog pilot-istraživanja može se zaključiti da auditivna rehabilitacija, nakon nabavke slušnih aparata, ima pozitivan uticaj na ukupno iskustvo korisnika, njihovo zadovoljstvo slušnom amplifikacijom, kao i na dodatnu motivaciju za njeno korišćenje. Ipak, tokom istraživanja zapazili smo da je nivo motivacije korisnika slušne amplifikacije za učešće u auditivnoj rehabilitaciji veoma nizak, kao i da kod korisnika koji su dobrovoljno pristali da budu deo ovog procesa motivacija u značajnoj meri oscilira tokom vremena.

**Ključne reči:** *auditivna rehabilitacija, amplifikacija, odrasli korisnici*

\* Rad je proistekao iz projekta „Uticaj kohlearne implantacije na edukaciju gluvih i nagluvih osoba” (br. 179055), čiju realizaciju podržava Ministarstvo nauke, tehnološkog razvoja i inovacija Republike Srbije (ev. broj 451-03-47/2023-01/200096).

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## IMPACT OF AUDITORY REHABILITATION ON HEARING AMPLIFICATION EFFECTIVENESS IN ADULT USERS\*

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**Introduction:** Hearing impairment in adults is a chronic condition that could considerably affect communication, quality of life, professional efficiency, self-confidence, and satisfaction, as well as cognitive deterioration of an individual. Hearing health and care program is a part of the healthcare agenda in Serbia. However, apart from providing hearing aids for adults diagnosed with considerable hearing loss, there is no systematic approach for hearing screening in the adult population or auditory rehabilitation for individuals with acquired hearing impairment. This presentation is part of a pilot project dedicated to the introduction of a Protocol of auditory rehabilitation for adult hearing aid users at the beginning of hearing aid use in surdology practice.

**Aim:** The purpose of the study was to assess the impact of the systematic use of the Protocol of auditory rehabilitation on the effective use of hearing aids, overall satisfaction, and additional motivation for amplification.

**Method:** The study was conducted in a facility for hearing aid distribution and fitting. The sample consisted of twenty hearing-impaired adults, 40-70 years of age, who consented to enroll in auditory rehabilitation on a voluntary basis.

**Results:** The results showed a considerable improvement in the auditory competence of the individuals who were involved in the process of auditory rehabilitation for three months immediately after the fitting of hearing aids. The assessment of the effects was done three times. The participants in the study were very satisfied and highly motivated to wear their hearing instruments.

**Conclusion:** According to this pilot study, auditory rehabilitation following hearing aid fitting in adult users could contribute to positive results regarding overall satisfaction and additional motivation for consistent hearing aid use. However, during this study, insufficient motivation of adult hearing aid users to take part in auditory rehabilitation was observed. We noticed the oscillating motivation over time in participants who have volunteered to be a part of this study as well.

**Keywords:** *auditory rehabilitation, amplification, adult users*

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## VAŽNOST PRAVOVREMENE AMPLIFIKACIJE KAO KLJUČ USPEŠNE REHABILITACIJE KOD ODRASLIH OSOBA

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**Uvod:** Osobe oštećenog sluha koje ne nose slušne aparate sklone su izolaciji, usamljenosti, depresiji i anksioznosti. Njihov kvalitet života opada zbog smetnji u komunikaciji sa okolinom, pa često dolazi do narušavanja odnosa u porodici ili gubitka posla. Amplifikacija slušnim aparatima zauzima posebno mesto u procesu rehabilitacije sluha.

**Cilj:** Ciljevi istraživanja odnose se na utvrđivanje značaja da pravovremena amplifikacija i redovno nošenje slušnih aparata značajno pozitivno utiču na svakodnevno funkcionisanje osoba sa oštećenjem sluha, tok rehabilitacije, kao i društvene odnose. Dodatni cilj istraživanja uključuje značaj pravovremenog reagovanja kad je u pitanju nastanak oštećenja sluha i nošenje aparata.

**Metode:** U istraživanju su korišćeni sledeći merni instrumenti: Međunarodni upitnik o ishodu upotrebe slušnih pomagala i Upitnik o slušnom hendikepu za odrasle osobe.

U istraživanju je učestvovalo 60 ispitanika starosti od 32 do 93 godine koji prvi put nose slušne aparate u trajanju od dva do šest meseci, kao i 90 ispitanika starosti od 23 do 90 godina koji ne nose slušne aparate.

**Rezultati:** Najveće poboljšanje utvrđeno je prilikom korišćenja slušnih aparata, poboljšanja kvaliteta života ispitanika i uticaja nošenja slušnih aparata na komunikaciju i odnose sa drugim ljudima. Većina ispitanika smatra da su slušni aparati vredni nošenja i da imaju koristi od njih. Najlošiji rezultati utvrđeni su u okviru obavljanja pojedinih svakodnevni aktivnosti. Rezultati istraživanja su pokazali da što je vreme nastanka oštećenja sluha duže, intenzivniji je osećaj smetnji na emocionalnom i socijalnom planu.

**Zaključak:** Amplifikacija predstavlja samo početak rehabilitacije sluha. Dodatno, u rehabilitaciji je značajno posvetiti pažnju socijalnim i emocionalnim aspektima života osoba sa slušnim oštećenjima. Kada osoba prihvati slušni aparat kao deo sebe, sa većim zadovoljstvom funkcioniše u društvu i poboljšava joj se kvalitet života, što znači da smo postigli cilj rehabilitacije.

**Ključne reči:** *rehabilitacija sluha, socijalni aspekt, emocionalni aspekt, pravovremena amplifikacija*

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## IMPORTANCE OF TIMELY AMPLIFICATION AS KEY TO SUCCESSFUL REHABILITATION IN ADULTS

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**Introduction:** Hearing-impaired people who do not use hearing aids are prone to isolation, loneliness, depression, and anxiety. Their quality of life decreases due to disturbed communication with the environment, so there is often a disruption of family relationships or job loss. Hearing aid amplification is very important in the hearing rehabilitation process.

**Aim:** The aim of this research was to prove that with timely amplification and regular use of hearing aids, a person can function normally, i.e., without a handicap. Also, the goal was to determine the significance a timely response in case of hearing loss and using hearing aids.

**Method:** In this research, we used the International Outcome Inventory for Hearing Aids (IOI-HA) and the Hearing Handicap Inventory for Adults (HHIA).

The research included 60 participants 32-93 years of age who used hearing aids for the first time for 2 to 6 months, and those 90 aged 23-90 who did not use hearing aids.

**Results:** The greatest improvement is seen in the use and satisfaction of using hearing aids, the improvement in the quality of life, and the impact on other people. Most participants believe that hearing aids are useful and beneficial. The worst results are found in certain daily activities. Research results indicate that as the time of onset of hearing loss increases, the feeling of a significant handicap in both the emotional and social fields increases.

**Conclusion:** Amplification is only the beginning of the rehabilitation of hearing. In addition, in rehabilitation, it is important to pay attention to the social and emotional aspects of the lives of people with hearing impairment. When a person accepts a hearing aid and functions with pleasure in society, their quality of life improves, which means that we have achieved the goal of rehabilitation.

**Keywords:** *acquired hearing loss, timely amplification, social and emotional aspect, adult rehabilitation*

PRESTUPNIŠTVO I RIZICI  
DELINQUENCY AND RISKS

## MALOLETNICI BEZ RODITELJSKOG STARANJA KOJIMA SU IZREČENE VASPITNE MERE\*

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**Uvod:** Rezultati inostranih istraživanja pokazuju da više od trećine maloletnika bez roditeljskog staranja dolazi u kontakt sa sistemom maloletničkog pravosuđa. Empirijski nalazi o njihovim iskustvima, potrebama i razvojnim ishodima sugerišu postojanje značajnih razlika u odnosu na maloletnike uključene u samo jedan sistem.

**Cilj:** Ovo istraživanje ima za cilj utvrđivanje razlika u individualnim karakteristikama i istoriji domskog smeštaja između maloletnika bez roditeljskog staranja i drugih maloletnika kojima su izrečene vaspitne mere.

**Metode:** Uzorak čine svi korisnici sa izrečenom vaspitnom merom koji su bili smešteni u Zavodu za vaspitanje dece i omladine Beograd u periodu 2018–2022. godine (N=25). Korisnici iz uzorka su oba pola (muški 68,0%), uzrasta 14–19 godina (AS=16,66, SD=1,21), a 40,0% je bez roditeljskog staranja. Potrebni podaci prikupljeni su analizom službene dokumentacije.

**Rezultati:** Prema većini ispitivanih varijabli, nema značajnih razlika između maloletnika bez roditeljskog staranja i drugih korisnika sa izrečenom vaspitnom merom. Ove dve grupe značajno se razlikuju prema polu ( $\chi^2 = 6,00$ ,  $df = 1$ ,  $p < .05$ ), učestalosti mentalnih poremećaja ( $\chi^2 = 4,57$ ,  $df = 1$ ,  $p < .05$ ) i načinu otpusta ( $\chi^2 = 6,25$ ,  $df = 1$ ,  $p < .05$ ).

**Zaključak:** Maloletnici bez roditeljskog staranja sa izrečenom vaspitnom merom zaslužuju posebnu pažnju zbog povećane izloženosti rizičnim faktorima koji su povezani sa recidivizmom. Nalazi ovog istraživanja mogu da doprinesu razvoju efektivnijih programa prevencije i tretmana za ovu grupu maloletnih prestupnika.

**Ključne reči:** *delinkvencija, dvostruko uključeni maloletnici, maloletničko pravosuđe, socijalna zaštita dece, vaspitne mere*

\* Rad je nastao kao rezultat istraživanja na projektu koji finansira Ministarstvo nauke, tehnološkog razvoja i inovacija Republike Srbije (br. ugovora 451-03-47/2023-01).

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## MINORS WITHOUT PARENTAL CARE WHO HAVE BEEN SUBJECTED TO EDUCATIONAL MEASURES\*

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**Introduction:** The results of international research show that more than a third of minors without parental care come into contact with the juvenile justice system. Empirical findings about their experiences, needs and developmental outcomes suggest the existence of significant differences compared to minors included in only one system.

**Aim:** This research aims to determine the differences in individual characteristics and history of home placement between minors without parental care and other minors who have been subjected to educational measures.

**Method:** The sample consists of all users who have been subjected to educational measures and were housed in the Institute for the Education of Children and Youth Belgrade in the period 2018–2022 (N=25). The users in the sample are of both sexes (male 68.0%), aged 14–19 years (AS=16.66, SD=1.21), and 40.0% are without parental care. The required data were collected by analyzing official documentation.

**Results:** For most of the examined variables, no significant differences were found between minors without parental care and other users who have been subjected to educational measures. These two groups differ significantly according to gender ( $\chi^2 = 6.00$ ,  $df = 1$ ,  $p < .05$ ), the frequency of mental disorders ( $\chi^2 = 4.57$ ,  $df = 1$ ,  $p < .05$ ) and type of exit ( $\chi^2 = 6.25$ ,  $df = 1$ ,  $p < .05$ ).

**Conclusion:** Minors without parental care who have been subjected to educational measures deserve special attention due to their increased exposure to risk factors associated with recidivism. The findings of this research can contribute to the development of more effective prevention and treatment programs for this group of juvenile offenders.

**Keywords:** *delinquency, dually-involved minors, juvenile justice, child welfare, educational measures*

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## ODNOS MALOLJETNIH PRESTUPNIKA PREMA VASPITAČIMA

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**Uvod:** Ovo empirijsko istraživanje govori o odnosu maloljetnih prestupnika prema vaspitačima, s posebnim akcentom na utvrđivanje razlike između stavova maloljetnika koji se nalaze u vaspitno-popravnom domu, a koji je ustanova zatvorenog tipa i Dnevnom centru za maloljetnike, koji je ustanova otvorenog tipa. Zanimalo nas je da li maloljetni prestupnici imaju pozitivnije stavove o vaspitačima ako nisu izolovani iz sredine i porodice, te koliko taj faktor utiče na njihov odnos prema vaspitačima koji su nosioci prevaspitnog tretmana i njihove resocijalizacije. Činjenica da se ovim problemom i dilemom nismo bavili u dovoljnoj mjeri i da postoji jako mali broj tangencijalnih istraživanja ukazuje na društvenu, naučnu, ali i aplikativnu vrijednost ovog istraživanja.

**Cilj:** Cilj istraživanja jeste da se utvrdi da li postoji razlika u odnosu između maloljetnih prestupnika u Vaspitno-popravnom domu Banja Luka i maloljetnih prestupnika iz Dnevnog centra za maloljetnike prema vaspitačima koji učestvuju u procesu njihove resocijalizacije.

**Metode:** U okviru ovog istraživanja koristili smo metodu teorijske analize, komparativnu metodu i servej metodu, a od instrumenata semantički diferencijal i anketni upitnik. Populaciju istraživanja činila su maloljetna lica koja su se u periodu 2020–2022. godine nalazila na izvršenju zavodske mjere upućivanja u vaspitno-popravni dom koja se sprovodi u Vaspitno-popravnom domu Banja Luka, odnosno lica koja su upućena od Centra za socijalni rad Banja Luka u Dnevni centar za maloljetnike. Ukupno 50 štićenika – ispitanika.

**Rezultati:** U našem istraživanju utvrdili smo da postoji razlika između maloljetnih prestupnika u odnosu na to kako posmatraju ličnost i rad vaspitača u zavisnosti od toga u kojoj se vaspitnoj ustanovi nalaze.

**Zaključak:** Podatke koje smo analizirali i predstavili u našem istraživanju ukazuju da maloljetni prestupnici koji se nalaze u Dnevnom centru za maloljetnike, a koji je ustanova otvorenog tipa, imaju pozitivniji odnos prema vaspitaču od štićenika u vaspitno-popravnom domu. Ipak, bez obzira na rezultate istraživanja koji ukazuju na ovaj odnos, uvek treba nastojati da se razumiju i neke specifične karakteristike i mogući sredinski uslovi koji su uticali da maloljetni prestupnici imaju takav odnos prema svojim vaspitačima.

**Ključne reči:** *maloljetni prestupnici, vaspitači, struktura porodice, resocijalizacija, tretman*

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## RELATIONSHIP OF JUVENILE OFFENDERS TOWARD EDUCATORS

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**Introduction:** This empirical research deals with the attitude of juvenile offenders towards educators, with a special emphasis on determining the difference between the attitudes of juveniles who are in the correctional facility, which is a closed institution, and the Day Center for Juveniles, which is an open institution. We were interested in whether juvenile delinquents had more positive attitudes towards educators if they were not isolated from their environment and family, and how much this factor affected their attitude towards educators who were the bearers of pre-educational treatment and their resocialization. The fact that we have not dealt with this problem and dilemma to a sufficient extent and that there is a very small number of tangential research points to the social, scientific, and applied value of this research.

**Aim:** The research objective was to determine whether there was a difference in the relationship between juvenile delinquents in Banja Luka Correctional Center and juvenile delinquents from the Day Center for Juveniles towards educators who participated in the process of their resocialization.

**Method:** In this research, we used the theoretical analysis method, the comparative method and the survey method, and the instruments were the semantic differential and the survey questionnaire. The research sample consisted of minors who, in the period 2020-2022, were on the execution of the institutional measure of referral to an educational correctional home, carried out in Banja Luka Correctional Home, persons who were referred by the Center for Social Work Banja Luka to the Day Center for Juveniles. The sample included a total of 50 residents – respondents.

**Results:** We determined that there was a difference between juvenile offenders in how they viewed the personality and work of educators, depending on the educational institution they were in.

**Conclusion:** The data that we analyzed and presented in our research indicates that juvenile offenders in the Day Center for Juveniles, which is an open-type institution, had a more positive attitude towards the teacher, compared to the inmates in the correctional institution. However, regardless of the research results that indicate this relationship, one should always try to understand some specific characteristics and possible environmental conditions that influenced juvenile offenders to have such a relationship with their educators.

**Keywords:** *juvenile delinquents, educators, family structure, resocialization, treatment*



## POVEZANOST NAPUŠTANJA ŠKOLOVANJA I SUKOPA SA ZAKONOM U ADOLESCENCIJI\*

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**Uvod:** Napuštanje školovanja javlja se, između ostalog, kao posledica dugotrajnog i kontinuiranog osećaja akademskog neuspeha, koji sa sobom nosi niz emocionalnih i socijalnih teškoća (razočarenje, nepoverenje u svoje sposobnosti i mogućnosti, odbačenost od vršnjaka, pritisak porodice, škole i lokalne zajednice). Kao posledica napuštanja školovanja javlja se privremeni prekid niza socijalnih procesa, a istovremeno se širi prostor za delovanje kriminogenih faktora (skitnja, druženje sa osobama asocijalnog i antisocijalnog ponašanja, maloletničke bande i sl.). Učenici koji napuste školu imaju veću verovatnoću za uključivanje u delinkventne i kriminalne aktivnosti i manifestovanje društveno neprihvatljivog ponašanja. Istraživanja sprovedena u populaciji maloletnih delinkvenata pokazuju da je, u poređenju sa opštom populacijom maloletnika, značajno više onih koji su napustili školovanje. Istraživanje i praćenje pojave napuštanja školovanja u našim uslovima otežano je zbog nepostojanja jedinstvenog informacionog sistema. Budući da nema kontinuiranog praćenja pojedinca u sistemu, podatke koje pružaju javne statistike treba uzeti sa rezervom i neophodno je sprovesti dodatna, ciljana istraživanja radi utvrđivanja stvarnog stanja.

**Cilj:** Cilj rada je sagledavanje kompleksne veze između napuštanja školovanja i sukoba sa zakonom u adolescenciji.

**Metode:** Analiza podataka izvršena je korišćenjem kanoničke diskriminativne analize, kao i analizom pravosudne statistike o registrovanom kriminalitetu maloletnika u Republici Srbiji u periodu od 2012. do 2019. godine.

**Rezultati i zaključak:** Nalazi mnogih istraživanja, pa i ovog, potvrdili su da napuštanje školovanja u značajnoj meri doprinosi intenziviranju delinkventnih aktivnosti, kao i da uključenost u proces obrazovanja može imati zaštitni uticaj na maloletnike, posebno na one koji su ispoljavali rane poremećaje u ponašanju i koji potiču iz porodica sa poremećenim odnosima.

**Ključne reči:** *napuštanje školovanja, sukobi sa zakonom, maloletnici, delinkvencija*

\* Rad je proistekao iz projekta „Društvene devijacije, kriminal i problemi ponašanja: uzroci i društvena reakcija“, čiju je realizaciju podržalo Ministarstvo nauke, tehnološkog razvoja i inovacija Republike Srbije (ev. broj 451-03-47/2023-01/200096)

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## THE RELATIONSHIP BETWEEN SCHOOL DROPOUT AND CONFLICTS WITH THE LAW IN ADOLESCENCE\*

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**Introduction:** School dropout occurs, among other things, as a consequence of prolonged and continuous feelings of academic failure, which bring about a range of emotional and social difficulties (disappointment, lack of confidence in one’s abilities and potential, peer rejection, pressure from family, school, and the local community). As a result of dropping out of school, there is a temporary interruption of social processes, and at the same time, the exposure to the influence of criminogenic factors (vagrancy, association with individuals engaging in antisocial behavior, juvenile gangs, etc.) increases. Students who leave school are more likely to become involved in delinquent and criminal activities and exhibit socially unacceptable behavior. Studies conducted on the population indicate that there is a significantly higher proportion of school dropouts compared to the general population of minors. Researching and monitoring the phenomenon of school dropout in our conditions is challenging due to the absence of a unified information system. Since there is no continuous monitoring of individuals within the system, the data provided by public statistics should be taken with caution. Additional aimed research is necessary to determine the actual situation.

**Aim:** Therefore, the aim of this study was to examine the complex relationship between school dropout and conflicts with the law in adolescence.

**Method:** The data analysis included canonical discriminant analysis, as well as an analysis of judicial statistics on registered juvenile crime in the Republic of Serbia from 2012 to 2019.

**Results and conclusion:** The findings of numerous studies, including this one, have confirmed that school dropout significantly contributes to the intensification of delinquent activities, and that engagement in the educational process can have a protective impact on minors, especially those who have exhibited early behavioral disorders and come from families with disturbed relationships.

**Keywords:** *school dropout, conflicts with the law, minors, delinquency*

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## PREDNOSTI PRIMENE MEDIJACIJE U REAGOVANJU NA MALOLETNIČKI KRIMINALITET\*

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**Uvod:** Uloga tradicionalnog krivičnog pravnog sistema vremenom se menja i sve su zastupljenija nastojanja da se izbegnu procesni formalizam i sudska restriktivnost, posebno kada je u pitanju reagovanje na maloletnički kriminalitet. Uvođenjem diverzionih modela postupanja u odnosu na maloletne učiniocce krivičnih dela u Srbiji omogućava se primena međunarodnih standarda, što je u skladu sa trendovima kriminalne politike razvijenih zemalja. U cilju ostvarivanja principa restorativne pravde propisuje se mogućnost primene medijacije i drugih mera restorativne pravde koje su u najboljem interesu žrtava kriminaliteta, odnosno maloletnih učinilaca krivičnih dela. Sa aspekta kriminalne politike medijacija u smislu posredovanja između žrtve i učinioca (victim-offender mediation – VOM) institucionalizovana je 2006. godine u Zakoniku o krivičnom postupku, mada u ovom obliku nikada nije uspostavljena. Danas se o medijaciji govori u kontekstu vaspitnih naloga propisanih u Zakonu o maloletnim učiniocima krivičnih dela i krivičnom pravnoj zaštiti maloletnih lica. Preciznije, u praksi maloletničkog pravosuđa, iako u malom broju slučajeva, primenjuje se vaspitni nalog poravnanje žrtve i učinioca.

**Cilj:** Polazeći od rezultata svetskih istraživanja i iskustava u primeni medijacije u oblasti maloletničkog pravosuđa, a imajući u vidu normativni okvir u oblasti maloletničkog pravosuđa u Srbiji, cilj rada je da ukaže na prednosti primene medijacije u reagovanju na kriminalitet maloletnika.

**Metode:** Budući da je u pitanju narativni pregledni rad, primenjene su analiza i sinteza savremenih teorijskih i empirijskih nalaza kroz proučavanje relevantne literature u različitim naučnim izvorima podataka.

**Rezultati:** Iskustva zemalja koje imaju dugu tradiciju primene medijacija i drugih vaspitnih naloga u maloletničkom pravosuđu ukazuju na značajan doprinos u oblasti redukcije recidivizma, prevencije i suzbijanja maloletničkog kriminaliteta. Primena vaspitnih naloga usklađena je sa trendom i strukturom kriminaliteta maloletnika. Izbegavanjem kontakta maloletnih prestupnika sa pravosudnim sistemom, uz istovremeno aktiviranje relevantnih socijalnih i službi u lokalnoj zajednici, kao i pripadnika policije specijalizovanih isključivo za rad sa maloletnim prestupnicima, došlo je do značajne redukcije recidivizma maloletnika. S

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druge strane, u Srbiji, skoro dve decenije od uvođenja diverzionih modela postupanja u maloletničko pravosuđe, nije se mnogo odmaklo u pogledu njihove implementacije u praksi, što se posebno odnosi na medijaciju između žrtve i maloletnog prestupnika.

**Zaključak:** Medijacija u reagovanju na kriminalitet maloletnika ima obostranu korist, kako za žrtvu kriminalnog ponašanja, tako i za maloletnog učinioca. Žrtva krivičnog dela ima aktivnu ulogu u prihvatanju i realizovanju ove mere, čime se smanjuje rizik od sekundarne viktimizacije. Maloletni učinilac krivičnog dela, s druge strane, preuzima odgovornost za sopstveno ponašanje i štetu nanetu žrtvi, što doprinosi njihovoj reintegraciji i resocijalizaciji.

**Ključne reči:** *medijacija, maloletnici, kriminalitet, žrtve*

## THE ADVANTAGES OF APPLYING MEDIATION IN RESPONDING TO JUVENILE CRIME\*

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**Introduction:** The role of the traditional criminal justice system is changing over time, and there are more and more efforts to avoid procedural formalism and judicial restrictiveness, especially in responding to juvenile crime. By introducing diversion models for juvenile perpetrators of criminal offenses in Serbia, the application of international standards is enabled, which is in line with the criminal policy trends of developed countries. To realize the principles of restorative justice, it is recommended to apply mediation and other measures of restorative justice that are in the best interest of crime victims, and juvenile perpetrators. From the aspect of criminal policy, mediation between the victim and the perpetrator (victim-offender mediation – VOM) was institutionalized in 2006 within the Criminal Procedure Code, although it was never established in this form. Today, mediation is discussed in the context of educational orders prescribed in the Law on Juvenile Offenders and the Criminal Protection of Juveniles. More precisely, in the practice of juvenile justice, although in a small number of cases, an educational order victim-offender settlement is applied.

**Aim:** Based on the results of research and experiences with mediation in juvenile justice, and bearing in mind the normative framework in juvenile justice in Serbia, this paper aims to point out the advantages of applying mediation in responding to juvenile crime.

**Method:** Since this is a narrative review paper, the analysis and synthesis of contemporary theoretical and empirical findings through the study of relevant literature in various scientific data sources were applied.

**Results:** The experiences of countries that have a long tradition of applying mediation and other educational orders in juvenile justice indicate a significant contribution in the area of recidivism reduction, prevention and suppression of juvenile crime. The application of educational orders is harmonized with the trend and structure of juvenile crime. Bypassing the contact of juvenile offenders with the justice system, while at the same time activating relevant social services and local community services, as well as police officers specialized exclusively in working with juvenile offenders, led to significant reductions in juvenile recidivism. On the other hand, in Serbia, almost two decades after the introduction of

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diversion models in juvenile justice, not much progress has been made in terms of their implementation in practice, which especially refers to mediation between the victim and the juvenile perpetrator.

**Conclusion:** Mediation in responding to juvenile crime is mutually beneficial, both for the victim and for the juvenile perpetrator. The victim of the crime has an active role in accepting and implementing this measure, which reduces the risk of secondary victimization. A juvenile offender, on the other hand, takes responsibility for his own behavior and the damage caused to the victim, which contributes to his/her reintegration and resocialization.

**Keywords:** *mediation, juveniles, crime, victims*

## MOTIVI ZA KOCKANJE U STUDENTSKOJ POPULACIJI

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**Uvod:** Studentska populacija predstavlja posebno osetljivu grupu za učestvovanje u kockarskim aktivnostima. Stopa prevalencije problematičnog i patološkog kockanja studenata je od dva do tri puta viša nego u opštoj populaciji. Sve su prisutnija zapažanja u literaturi da bez obzira na široku rasprostranjenost kockanja, i dalje nedostaje suštinsko razumevanje motivacije studenata za kockanje, što predstavlja jednu od ključnih determinanti uključivanja u kockarsko ponašanje.

**Cilj:** Cilj rada je da se sagleda priroda motivacije za kockanje među studentskom populacijom.

**Metode:** U radu se koriste analiza i sinteza teorijskih i empirijskih nalaza kroz proučavanje relevantne literature u različitim naučnim izvorima podataka.

**Rezultati:** Većina studenata se kocka zbog želje za finansijskim dobitkom. Određenom broju studenata kockanje služi kao mehanizam prevazilaženja, kada se osećaju uznemireno, bespomoćno, anksiozno ili depresivno. Studenti često izveštavaju da se kockaju i iz društvenih i rekreativnih razloga, kao što su zabava ili interakcije sa prijateljima. Zapaženo je da se motivacija razlikuje u zavisnosti od razvojne faze kockarskog ponašanja. Uzbudjenje, zabava i povećanje novčanih prihoda izraženiji su kod studenata koji su razvili problematično i patološko kockanje, u odnosu na studente koji se rekreativno kockaju. Nešto manje problematičnih i patoloških kockara testira sopstvene sposobnosti i oni preferiraju igre znanja i veština. Kada se uključi rodna dimenzija problema kockanja, studentkinje su češće izveštavale da se kockaju kako bi regulisale negativna unutrašnja stanja ili neprijatne emocije.

**Zaključak:** Nalazi pokazuju da primarna pokretačka snaga pojedinca može biti indikativna za nivo i učestalost kockarskog ponašanja. Neophodno je delovati na opštem preventivnom nivou kroz podizanje svesti i razumevanje prirode i posledica kockanja, imajući u vidu njegovu aktuelnu socijalnu dostupnost. Važno je primenjivati individualne i grupne intervencije koje prevazilaze klasičan edukativni pristup, te usmeriti napore na promovisanje angažovanja ka prosocijalnim aktivnostima sa prijateljima i porodicom, kao i poboljšanje socijalnih veština. Za uspešan tretman neophodno je razumevanje sadržaja i obima motiva kako bi se iz višestruke perspektive integrativnije pristupilo tretmanu.

**Ključne reči:** *kockanje, studentska populacija, motivi za kockanje*

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## MOTIVES FOR GAMBLING IN THE STUDENT POPULATION

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**Introduction:** The student population impersonates a particularly sensitive group for participating in gambling activities. The prevalence rate of problematic and pathological gambling among students is two to three times higher than in the general population. There are more and more observations in the literature that regardless of the widespread prevalence of gambling, there is still a lack of a fundamental understanding of the motivation for gambling among students, which is one of the key determinants of involvement in gambling behavior.

**Aim:** The aim of the paper is to perceive the nature of the motivation for gambling among the student population.

**Method:** The paper uses the analysis and synthesis of theoretical and empirical findings through the study of relevant literature in various scientific data sources.

**Results:** Most students gamble for financial gain. For a number of students, gambling serves as a coping mechanism when they feel upset, helpless, anxious or depressed. Students often report that they also gamble for social and recreational reasons such as having fun or interacting with friends. It was noted that motivation differs depending on the developmental stage of gambling behavior. Excitement, fun and increased monetary income are more pronounced in students who have developed problem and pathological gambling compared to students who gamble recreationally. Slightly fewer problem and pathological gamblers test their own abilities and prefer games of knowledge and skill. When the gender dimension of problem gambling is included, female students more often reported that they gambled to regulate negative internal states or unpleasant emotions.

**Conclusion:** Findings indicate that an individual's primary driving force may be indicative of the level and frequency of gambling behavior. It is necessary to act on a general preventive level by raising awareness and understanding the nature and consequences of gambling, bearing in mind the current social availability of gambling. It is important to apply individual and group interventions that go beyond the classic educational approach, but focus efforts on promoting engagement in prosocial activities with friends and family, as well as improving social skills. For a successful treatment, it is necessary to understand the content and scope of the motive in order to approach the treatment more integratively from multiple perspectives.

**Keywords:** *gambling, student population, motives for gambling*



## DETERMINANTE ANTISOCIJALNOG PONAŠANJA UČENIKA SA INTELKTUALNOM OMETENOŠĆU

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**Uvod:** Terminom antisocijalno ponašanje najčešće se označavaju ponašanja kojima se ugrožavaju prava i imovina drugih ljudi, a koja su destruktivna i štetna po sredinu i proizvode negativne socijalne posljedice. Djeca sa intelektualnom ometenošću su u većem riziku za nastanak bihevioralnih problema u odnosu na vršnjake tipičnog razvoja. Procjena učestalosti antisocijalnog ponašanja u ovoj populaciji razlikuje se od studije do studije, a prisustvo različitih oblika izmijenjenog ponašanja jedan je od indikatora kvaliteta života.

**Cilj:** Cilj istraživanja je ispitivanje prisustva antisocijalnog ponašanja i utvrđivanje razlike u nivou antisocijalnog ponašanja u odnosu na pol, uzrast i opšti uspjeh učenika sa lakom intelektualnom ometenošću.

**Metode:** U radu je korišten empirijsko-neeksperimentalni metod, a uzorak istraživanja činilo je 50 učenika sa lakom intelektualnom ometenošću. Obuhvaćeni su ispitanici oba pola, kalendarskog uzrasta od sedam do dvanaest godina ( $AS=9,82$ ,  $SD=1,36$ ). Kao instrumenti istraživanja korišteni su sociodemografski upitnik i Skala antisocijalnog ponašanja koja je sastavni dio Skale za procjenu socijalnog ponašanja u školi (The School Behavior Scale) za evidentiranje problema u ponašanju učenika.

**Rezultati:** Dobijeni rezultati pokazuju da vrijednosti medijana distribucije problema u ponašanju kod djece sa lakom intelektualnom ometenošću naginju ka nižim vrijednostima ( $Mdn = 61,00$ ). Između dječaka i djevojčica sa lakom intelektualnom ometenošću ne postoji statistički značajna razlika u ispoljavanju antisocijalnog ponašanja (Mann-Whitney  $U = 281,000$ ;  $p = 0,706$ ). Učenici mlađeg i starijeg školskog uzrasta ne razlikuju se statistički značajno u ispoljavanju antisocijalnog ponašanja (Mann-Whitney  $U = 56,500$ ;  $p = 0,277$ ). Školski uspjeh učenika ne predstavlja statistički značajnu determinantu antisocijalnog ponašanja učenika sa lakom intelektualnom ometenošću ( $\chi^2 = 0,483$ ;  $df = 3$ ;  $p = 0,923$ ).

**Zaključak:** Ispitanici iz našeg uzorka ne pokazuju veću učestalost problema u ponašanju. Nezavisne varijable (pol, uzrast i školski uspjeh) ne dovode do razlika u ispoljavanju antisocijalnog ponašanja. Identifikovanje i razumijevanje uzroka i posljedica antisocijalnog ponašanja učenika sa intelektualnom ometenošću neophodan je korak u planiranju preventivnih i tretmanskih programa kako bi se preduprijedili ili ublažili bihevioralni

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problemi učenika. U cilju identifikacije determinanti antisocijalnog ponašanja, u obzir treba uzeti i biološke i sredinske, ali i dodatne mjere sociodemografskih varijabli.

**Ključne reči:** *antisocijalno ponašanje, učenici, laka intelektualna ometenost*

## DETERMINANTS OF ANTISOCIAL BEHAVIOR OF STUDENTS WITH INTELLECTUAL DISABILITIES

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**Introduction:** The term antisocial behavior most often refers to behaviors that threaten the rights and property of other people, are destructive and harmful to the environment and produce negative social consequences. Children with intellectual disabilities are at a higher risk of developing behavioral problems compared to peers with typical development. The assessment of the frequency of antisocial behavior in this population differs from study to study, and the presence of different forms of altered behavior is one of the indicators of the quality of life.

**Aim:** The objective of the research was to examine the presence of antisocial behavior and determine the difference in the level of antisocial behavior in relation to gender, age, and general success of students with mild intellectual disabilities.

**Method:** Empirical-non-experimental method was used in the study, and the research sample consisted of 50 students with mild intellectual disabilities. The sample included participants of both genders, 7-12 years of age ( $M=9.82$ ,  $SD=1.36$ ). A socio-demographic questionnaire and the Antisocial Behavior Scale (The School Behavior Scale) were used as research instruments, which is an integral part of the Scale for the Assessment of Social Behavior at School for recording problems in student behavior.

**Results:** The obtained results show that the values of the median distribution of behavior problems in children with mild intellectual disability tend towards lower values ( $Mdn=61.00$ ). There is no statistically significant difference between boys and girls with mild intellectual disability in the manifestation of antisocial behavior (Mann-Whitney  $U=281.000$ ;  $p=0.706$ ). Students of younger school age and students of older school age do not differ statistically significantly in the manifestation of antisocial behavior (Mann-Whitney  $U= 56.500$ ;  $p=0.277$ ). School success of students is not a statistically significant determinant of antisocial behavior of students with mild intellectual disability ( $\chi^2=0.483$ ;  $df=3$ ,  $p=0.923$ ).

**Conclusion:** The subjects of our sample do not show a higher frequency of behavioral problems. Independent variables (gender, age and school performance) do not lead to differences in the manifestation of antisocial behavior. Identifying and understanding the causes and consequences of antisocial behavior of students with intellectual disabilities is a necessary

step in planning preventive and treatment programs in order to prevent or alleviate behavioral problems of students. In order to identify the determinants of antisocial behavior, biological and environmental, as well as additional measures of sociodemographic variables, should be taken into account.

**Keywords:** *antisocial behavior, students, mild intellectual disability*

PRISTUPAČNOST ZA SVE  
ACCESSABILITY FOR ALL

## ADOLESCENTS ONLINE: OPPORTUNITIES, RISKS AND AWARENESS

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**Introduction:** During the last decades, there has been an enormous development and diffusion of new forms of Internet-information and communication technology and adolescents and young adults represent the most users.

**Aim:** The aims of the present research were: 1) to study the relationship between adolescents and new technologies; 2) to measure the effectiveness of school educational interventions; 3) to verify the hypothesis of a significant relationship between the educational interventions and the personal children’s well-being.

**Method:** This research, composed of three studies, investigated, with the first one, the relationship between adolescents and new technologies and their awareness of the opportunities and risks associated with the use of New Media. The research, carried out in the Comprehensive Institute of Codroipo (UD) in the Friuli Venezia-Giulia Region, involved 100 students of the first grades of the “G.Bianchi”, 10-12 years of age, during the school year 2021/22.

The second study measured the effectiveness of school educational interventions carried out in some first classes during the school year 2021/2022 and held by the teachers. These activities promoted the social and civic abilities and the responsible use of these new means of communication, in order to prevent emotional dysregulation, behavioral addiction and other psychopathological sequelae due to the misuse of new technologies.

The third study verified the hypothesis of a significant relationship between the acquisition of ethical, social and digital skills and the increase of the personal children’s well-being. Sixty pupils were selected from the previous group, 30 of whom were the study group that followed the “Smartphone License Project” and the remaining 30 formed the control group that did not participate in the project. For this purpose, specific tests and questionnaires regarding Mood, Self-Esteem, Social relationships and the risk of Internet Addiction were administered before and after the attended project to the two groups selected for the second study.

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**Results:** The data analysis enabled the collection of useful information about the relationship between adolescents and new technology.

**Conclusion:** The results confirmed the effectiveness of the activities proposed in the classroom with a positive effect on mood, self-esteem and social relationships and an increase in the awareness of the risks associated with surfing the Net.

**Keywords:** *new technologies, emotional dysregulation, behavioral addiction*

## KORIŠĆENJE INTERNETSKIH DRUŠTVENIH MREŽA MEĐU MLADIMA SA MOTORIČKIM SMETNJAMA\*

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**Uvod:** Korišćenje onlajn društvenih mreža kao domena internet komunikacije široko je rasprostranjeno među mladima poslednjih decenija. Društvene mreže pružaju različite povoljne mogućnosti za razvoj mladih. Na primer, pokazano je da se koriste za samoinicirano preduzetništvo i učenje, za izgradnju društvenog kapitala i za izgradnju identiteta. Shodno tome, utvrđeno je da je aktivno korišćenje društvenih mreža povezano sa pozitivnim razvojnim ishodima i psihološkom dobrobiti. S druge strane, kod nekih osoba dolazi do problematičnog ili prekomernog pasivnog korišćenja društvenih mreža, što negativno utiče na njihovo psihosocijalno funkcionisanje.

**Cilj:** Cilj ove studije je da se ispita upotreba internetskih društvenih mreža među mladima sa motoričkim smetnjama. Obuhvaćeni su sledeći aspekti korišćenja društvenih mreža: a) vrsta korišćenih društvenih mreža, učestalost i trajanje korišćenja; b) aktivnosti koje mladi primenjuju na društvenim mrežama; c) samoopažena motivacija za korišćenje društvenih mreža; d) samoopaženi uticaj korišćenja društvenih mreža na psihičko blagostanje i razvoj mladih.

**Metode:** Uzorak je obuhvatio 20 mladih osoba sa motoričkim smetnjama oba pola, uzrasta od 14 do 23 godine. Primenjen je polustrukturirani intervju koji je konstruisan za potrebe ovog istraživanja. Intervjui su vođeni individualno.

**Rezultati:** Nalazi ukazuju da mladi sa motoričkim smetnjama iz uzorka provode značajno vreme na društvenim mrežama. Oni uočavaju i pozitivne i negativne načine na koje korišćenje društvenih mreža utiče na njihovo psihosocijalno funkcionisanje i dobrobit.

**Zaključak:** Nalazi predstavljaju osnovu za programe koji bi promovisali konstruktivne načine korišćenja internetskih društvenih mreža među mladima sa motoričkim smetnjama.

**Ključne reči:** *korišćenje društvenih mreža, mladi, motoričke smetnje*

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## THE USE OF ONLINE SOCIAL NETWORKS AMONG THE YOUNG WITH MOTOR DISABILITIES\*

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**Introduction:** The use of online social networks as a domain of Internet communication has become widespread among the young during the last decades. Social networks provide various beneficial opportunities for the development of young persons. For example, it has been shown that they may be used for self-initiated enterprise and learning, for building social capital, and for identity construction. Accordingly, it has been established that the active use of social networks is related to positive developmental outcomes and well-being. On the other hand, some persons develop problematic or excessive passive use of social networks, which negatively impacts their psychosocial functioning.

**Aim:** The aim of the present study was to investigate online social networks use among the young with motor disabilities. The following aspects of social networks use were covered: a) type of social networks use, frequency and duration of use; b) activities that the young perform on the social networks; c) self-perceived motivation of social networks use; d) self-perceived impact of social networks use on psychological well-being and development of the young.

**Method:** The sample included 20 young persons with motor disabilities of both sexes, age range 14–23. A semi-structured interview was applied, which was constructed for the purposes of this study. Interviews were conducted individually.

**Results:** The findings suggest that the young with motor disabilities from the sample spend a substantial amount of time on social networks. The young perceive both positive and negative ways in which the use of social networks affects their psychosocial functioning and well-being.

**Conclusion:** The findings provide a basis for the programs which could promote constructive ways of online social network use among the young with motor disabilities.

**Keywords:** *online social networks use, young persons, motor disabilities*

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## POVEZANOST UPOTREBE ASISTIVNIH TEHNOLOGIJA I KVALITETA ŽIVOTA OSOBA SA MOTORIČKIM POREMEĆAJIMA: PREGLED NOVIJIH ISTRAŽIVANJA

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**Uvod:** Osobe sa motoričkim poremećajima suočavaju se sa teškoćama u obavljanju aktivnosti svakodnevnog života, profesionalnih aktivnosti, aktivnosti slobodnog vremena i socijalnoj participaciji. Sve to značajno narušava kvalitet njihovog života. Uređaji asistivne tehnologije olakšavaju i omogućavaju funkcionisanje osoba sa motoričkim poremećajima s ciljem da se unapredi njihova samostalnost u obavljanju aktivnosti, socijalna participacija i kvalitet života.

**Cilj:** Cilj ovog rada odnosio se na pregled dosadašnjih istraživanja o povezanosti upotrebe asistivne tehnologije i kvaliteta života osoba sa motoričkim poremećajima.

**Metode:** Formulirana su sledeća istraživačka pitanja: koje su vrste asistivnih tehnologija primenjivane u studijama o kvalitetu života osoba sa motoričkim poremećajima, da li korišćenje uređaja asistivne tehnologije ima uticaj na poboljšanje kvalitet života i koje su dodatne koristi upotrebe asistivnih tehnologija za osobe sa motoričkim poremećajima. Identifikacija odgovarajućih radova izvršena je pretraživanjem elektronskih baza podataka PubMed, MEDLINE, ERIC i JSTOR, a odnosila se na period od 1. januara 2012. do 31. decembra 2022. godine. Definisani su kriterijumi za uključivanje i isključivanje radova za razmatranje.

**Rezultati:** Identifikovano je ukupno 478 radova, a sve postavljene kriterijume ispunilo je 14 radova. Većina studija objavljena je u periodu od 2019. do 2020. godine, a ispitivana je povezanost pomagala za kretanje, robota, virtuelne realnosti, alternativnog input sredstva i sistema za kontrolu okruženja sa kvalitetom života osoba sa motoričkim poremećajima. Iako su studije imale izvesna metodološka ograničenja, postoje dokazi da asistivne tehnologije poboljšavaju kvalitet života bez obzira na vrstu motoričkog poremećaja, a posebno u domenima fizičkog i psihičkog zdravlja, kao i funkcionisanja u okruženju. Pojedine studije ukazale su na dodatnu korist upotrebe asistivnih tehnologija u rehabilitacione svrhe, kao i u poboljšanju u pokretljivosti, obavljanju aktivnosti, prilagodljivosti, samopouzdanju i samostalnosti.

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**Zaključak:** Dokazi iz odabranih studija ukazuju da asistivne tehnologije unapređuju kvalitet života, a prisutne su i dodatne koristi za osobe sa motoričkim poremećajima. U tom smislu ima više podataka o upotrebi pomagala za kretanje, a manje o novijim, sofisticiranim asistivnim tehnologijama, pa bi buduća istraživanja trebalo usmeriti u tom pravcu.

**Ključne reči:** *asistivna sredstva, invaliditet, kvalitet života*

## THE RELATIONSHIP OF THE ASSISTIVE TECHNOLOGIES USE AND THE QUALITY OF LIFE OF PERSONS WITH MOTOR DISORDERS: A REVIEW OF RECENT RESEARCH

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**Introduction:** Persons with motor disorders face difficulties performing activities of daily living, professional activities, leisure activities, and social participation. All of this significantly impairs their quality of life. Devices of assistive technologies facilitate and enable people with motor disorders to improve their independence in performing activities, social participation, and quality of life.

**Aim:** This article aimed to review previous research on the connection between the use of assistive technologies and the quality of life of people with motor disorders.

**Method:** The following research questions were formulated: what types of assistive technologies were applied in studies on the quality of life of persons with motor disorders, whether the use of assistive technology devices has an impact on improving the quality of life, and what are the additional benefits of using assistive technologies for persons with motor disorders. The identification of relevant articles was performed by searching the electronic databases PubMed, MEDLINE, ERIC, and JSTOR, and related to the period from January 1, 2012, to December 31, 2022. Inclusion and exclusion criteria were defined.

**Results:** A total of 478 papers were identified, and 14 articles met all the set criteria. Most of the studies were published from 2019 to 2020, and the connection of mobility aids, robots, virtual reality, alternative input devices, and environmental control systems with the quality of life of people with motor disorders was examined. Although the studies had certain methodological limitations, there is evidence that assistive technologies improve the quality of life regardless of the type of motor disorder, especially in the domains of physical and psychological health and functioning in the environment. Certain studies have indicated the additional benefit of using assistive technologies for rehabilitation purposes, as well as in improving mobility, the activities performance, adaptability, self-confidence, and independence.

**Conclusion:** Evidence from selected studies indicates that assistive technologies improve the quality of life, and there are additional benefits for people with motor disorders. In this sense, there is more data on the mobility aids use, and less on new, sophisticated assistive technologies, so future research should be directed in that sense.

**Keywords:** *assistive devices, disability, quality of life*

## PRISTUPAČNOST ZA OSOBE S INVALIDITETOM

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**Uvod:** Pristupačnost je načelo dostupnosti svih sadržaja svakoj osobi u društvu. Kao civilizacijsko dostignuće ona predstavlja temeljno pravo svih građana, posebno onih s invaliditetom, na jednake mogućnosti. Pristupačnost je ušla u niz hrvatskih pravnih i zakonskih akata i tako je postala obveza svih nositelja javnih i poslovnih djelatnosti. U današnje vrijeme dobra pristupačnost podrazumijeva ne samo fizičku i prostornu pristupačnost nego i komunikacijsku te informacijsku pristupačnost svih prostora i usluga.

**Cilj:** Utvrditi razinu i kvalitetu različitih oblika pristupačnosti u hrvatskom javnom prostoru te je usporediti s razinom pristupačnosti predviđenom hrvatskim pravnim aktima.

**Metode:** Analiziran je hrvatski nacionalni zakonodavni okvir usmjeren na osiguravanje pristupačnosti osobama s invaliditetom. Nakon toga je formirano 15 fokusnih grupa u Zagrebu, Osijeku, Splitu i Rijeci. U fokusnim grupama sudjelovalo je 39 osoba s invaliditetom (N=39), 20 roditelja djece s teškoćama u razvoju (N=20) i 31 stručnjak zaposlen u institucijama koje provode politike socijalne zaštite osoba s invaliditetom (N=31). Nakon provedenih fokusnih grupa audio-snimke su transkribirane, kodirane i analizirane kvalitativnom metodom tematske analize.

**Rezultati:** Rezultati ukazuju na nedovoljnu pristupačnost u svim njenim segmentima. Utvrđena je neprilagođenost javnih prostora i prometa, neprilagođenost kulturnih objekata, needuciranost djelatnika za pružanje komunikacijske i informacijske podrške osobama s invaliditetom i nedostupnost asistivne tehnologije. Također je utvrđeno da izostaje edukacija za primjenu načela pristupačnosti u hrvatskom društvu kao i sankcija za njeno neprovođenje.

**Zaključak:** Pristupačnost realizirana u praksi ne postiže učinke predviđene zakonskim aktima, a i ne implementira EU direktive na učinkovit način te zbog toga ne osigurava osobama s invaliditetom u Hrvatskoj jednaku razinu prava i mogućnosti. Potrebno je osigurati sustavnu edukaciju pravnih i fizičkih osoba važnih za osiguravanje pristupačnosti na svim razinama, sustavniju primjenu propisa te sankcije za slučajeve nepridržavanja ili neosiguravanja pristupačnosti.

**Ključne riječi:** *pristupačnost, invaliditet, zakonski okvir*

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## ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

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**Introduction:** As a civilizational achievement, accessibility represents the fundamental right of all citizens, especially those with disabilities, to equal opportunities. Accessibility, as a term, has entered several Croatian legal acts and thus has become an obligation of all holders of public and business activities. Nowadays, good accessibility implies not only physical and spatial accessibility but also communication and informational accessibility of all spaces and services.

**Aim:** To determine the level and quality of different forms of accessibility in Croatian public space and to compare it with the level of accessibility provided by Croatian legal acts.

**Method:** The Croatian national legislative framework aimed at ensuring accessibility for people with disabilities was analyzed. After that, 15 focus groups were formed, consisting of persons with disabilities, parents of children with disabilities, and experts employed in institutions implementing social protection policies for persons with disabilities. After the focus groups, the audio recordings were transcribed, coded, and analyzed using the qualitative method of thematic analysis.

**Results:** The lack of adaptation of public spaces and traffic, the adaptation of cultural facilities, training of employees to provide communication and information support to people with disabilities, and the unavailability of assistive technology were found. It was also established that there is a lack of education for the application of the principle of accessibility in Croatian society, as well as sanctions for its non-implementation.

**Conclusion:** Accessibility realized in practice does not achieve the effects foreseen by the legal acts, and therefore does not ensure the same level of rights and opportunities for people with disabilities in Croatia. It is necessary to provide systematic education of legal and natural persons important for ensuring accessibility, and more systematic application of regulations and sanctions for cases of non-compliance or failure to ensure accessibility.

**Keywords:** *accessibility, disabilities, legal framework*

## EXPLORING THE CURRENT PRACTICES OF SLOVENIAN SPEECH AND LANGUAGE THERAPISTS ON ADAPTING AUGMENTATIVE AND ALTERNATIVE COMMUNICATION SYSTEMS TO THE NEED OF CHILDREN WITH CEREBRAL VISUAL IMPAIRMENT

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**Introduction:** Cerebral visual impairment (CVI) is one of the most common visual impairments in the developed world. Children with CVI often have comorbid problems that affect their communication, so they may benefit from augmentative and alternative communication (AAC). Because AAC systems rely heavily on vision, the success of using them depends critically on adapting it to the individual needs of each user. Here, speech and language therapists play a very important role as they coordinate and lead the process of designing, adapting the AAC system and teaching individuals how to use it.

**Aim:** The aim of our study was to investigate the extent to which speech and language therapists in Slovenia are familiar with the use, adaptation, and preparation of augmentative and alternative communication systems for children with cerebral visual impairments.

**Method:** The study was carried out using a semi-structured questionnaire, which was qualitatively and quantitatively processed.

**Results:** The results show that most speech and language therapists are less familiar with the problems that cerebral visual impairment brings and, thus, less familiar with the rules of adapting AAC materials to children with cerebral visual impairment. Based on the results obtained, we have placed special emphasis on the development of guidelines and recommendations for the adaptation of augmentative and alternative communication systems for children with visual impairment.

**Conclusion:** It can be concluded that speech and language therapists in Slovenia lack the knowledge on how to adapt AAC materials to the needs of children with CVI, and they face many barriers in their everyday work. The field of AAC in Slovenia is still developing, and further education and training of speech and language therapists will be necessary.

**Keywords:** *augmentative and alternative communication, cerebral visual impairment, speech and language therapy*

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## TRODIMENZIONALNI PRINTOVI KAO TAKTILNE INFORMACIJE O ULIČNOJ UMETNOSTI

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**Uvod:** Ulična umetnost jeste vrsta umetnosti koja je nastala na javnim mestima, najčešće na ulicama. Kao udruženje koje se bavi istraživanjem, dokumentovanjem i promocijom ulične umetnosti, Street Art Belgrade se, nakon produkcije svoje prve izložbe u virtuelnoj realnosti, suočilo s činjenicom da ulična umetnost zapravo nije dostupna svima. Mogućnosti savremene tehnologije trodimenzionalne štampe do sada nisu dovoljno istražene kada je u pitanju proizvodnja reljefnih prikaza namenjenih osobama sa oštećenjem vida.

**Cilj:** Prikaz projekta pripreme i postavljanja trodimenzionalnih modela murala koji se nalaze u Beogradu, kako bi se slepim i slabovidim osobama približila ulična umetnost.

**Metode:** U saradnji sa Gradskom organizacijom slepih iz Beograda, radilo se na otkrivanju na koji je način moguće kreirati trodimenzionalne objekte koji prikazuju dvodimenzionalnu umetnost u javnom prostoru. Konkretno, pravljene su različite modele koje su zatim članovi Gradske organizacije slepih taktilno analizirali. Kroz razgovore s njima prikupljene su veoma važne informacije o tome šta im (ne)odgovara, nakon čega je sve implementirano u izradu novih modela.

**Rezultati:** Nakon tri godine rada na pripremi ovog projekta, krajnji ishod je postavljanje devet 3D tabli sa opisom na Brajevom pismu u javnom prostoru grada. Pomenuti reljefni prikazi i table sa opisima dostupni su svima.

**Zaključak:** Zahvaljujući projektu „Umetnost u prolazu“ grad Beograd je postao jedini grad u Evropi sa ovim brojem trodimenzionalnih modela murala ulične umetnosti predstavljenim u javnom prostoru.

**Ključne reči:** *umetnost, ulična umetnost, trodimenzionalni print, oštećenje vida, Brajevo pismo*

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## 3D PRINTS AS TACTILE INFORMATION ABOUT STREET ART

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**Introduction:** After the production of our first virtual reality exhibition about street art, Street Art Belgrade, as an association that deals with research, documentation and promotion of this art form, has finally realized that street art is not accessible to everyone. New technologies, especially 3D printing, can provide us with an affordable and easier way of producing tactile objects for the blind and partially sighted.

**Aim:** Showcasing the process of preparation and presentation of three-dimensional models of the art pieces in the public space in Belgrade in order to make street art available and understandable to the blind and partially sighted.

**Method:** In collaboration with the Association of Blind and Partially Sighted Belgrade, our association has been working on discovering the way of creating 3D tactile objects that present two-dimensional art in public space. Several try-out handmade models have been made and have been given to the members of the Association of Blind and Partially Sighted Belgrade to analyze. In this discussion, we have gathered important information on what is understandable to them and what is not. This information has been implemented in the production of the 3D prints.

**Results:** After three years of active development of this project, we managed to put up nine 3D prints with descriptions in Braille in public space where they are available to everyone.

**Conclusion:** This makes Belgrade the only city in Europe with this amount of 3D prints for the blind and partially sighted in the public space.

**Keywords:** *street art, 3D prints, visual impairment, Braille alphabet*

DRŽAVNO REAGOVANJE NA KRIMINALITET  
STATE RESPONSE TO CRIME

## DRUŠTVENA ZNAČENJA MASOVNIH UBISTAVA U ŠKOLAMA: SLUČAJ SRBIJE\*

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**Uvod:** Masovna ubistva u školama postaju učestaliji fenomen od sredine šezdesetih godina, pre svega u SAD, a znatno ređe u Evropi. Prema brojnim istraživanjima u SAD iza ovakvih ubistava obično stoje četiri zajednička činioca: 1) neprepoznate mentalne teškoće dece koja su izvršila ove zločine; 2) roditeljsko okruženje u kome se glorifikuje oružje; 3) „želja za osvetom“ sredini koju su deca počinioci ubistava doživljavali kao pretnju njihovom izvitoperenom osećanju odbačenosti i narušene dominacije; 4) negativna porodična iskustva u vidu zlostavljanja, porodičnih sukoba i mentalnih teškoća roditelja. Na individualnom nivou to su deca kod koje se mogu pronaći crte razvoja antisocijalnog poremećaja ličnosti, depresivnosti, samoubilačkih misli, osećanja progona i ekstremno razvijene mržnje prema socijalnom okruženju.

**Cilj:** Naučni cilj rada je objašnjenje kompleksnosti društvenih značenja masovnih ubistava u školama, na primeru događaja od 3. 5. 2023. godine kada je trinaestogodišnji maloletnik ubio devet učenika i školskog čuvara u osnovnoj školi „Vladislav Ribnikar“ u centralnoj gradskoj opštini Vračar u Beogradu.

**Metode:** U radu se koristi dedukcija kao opšta naučna metoda kojom se na osnovu opštih obeležja događaja izvode pojedinačni zaključci o višedimenzionalnosti društvenih značenja. Kao posebna metoda koristi se analiza sadržaja medijskih poruka i stručnih tekstova.

**Rezultati:** Društvena značenja masovnih ubistava su kompleksna i mogu se sagledati kroz antropološku, moralnu, religijsku, istorijsku, klasnu, rodnu, psihosocijalnu, bezbednosnu i političku dimenziju.

**Zaključak:** Ubistva dece u školi imaju za posledicu duboku traumatizaciju javnosti i zajednice, preispitivanje sistema obrazovanja i bezbednosti, pojačavanja vrednosno-ideoloških i političkih podela u društvu i veliki uticaj informativnih medija i društvenih mreža u konstrukciji tragičnog događaja.

**Ključne reči:** *masovna ubistva, škola, društvo, konstrukcija značenja*

\* Rad je proistekao iz projekta „Društvene devijacije, kriminal i problemi ponašanja: uzroci i društvena reakcija“ čiju je realizaciju podržalo Ministarstvo nauke, tehnološkog razvoja i inovacija Republike Srbije (ev. broj 451-03-47/2023-01/200096)

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## SOCIAL MEANINGS OF MASS KILLINGS IN SCHOOLS: THE CASE OF SERBIA\*

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**Introduction:** Mass murders in schools have become a more frequent phenomenon since the mid-1960s, primarily in the USA and significantly less often in Europe. According to numerous studies, in the USA, four common factors are usually behind such murders: 1) unrecognized mental difficulties of the children who committed these crimes; 2) parental environment in which weapons are glorified; 3) “desire for revenge” towards the environment, which the child perpetrators of murder perceived as a threat to their “warped” feeling of rejection and violated dominance; 4) negative family experiences in the form of abuse, family conflicts and mental difficulties of parents. On an individual level, these are children who can be found developing traits of antisocial personality disorder, depression, suicidal thoughts, feelings of persecution and extremely developed hatred towards the social environment.

**Aim:** The scientific goal of the work is to explain the complexity of the social meanings of mass murders in schools, using the example of the event of May 3, 2023, when a thirteen-year-old minor killed nine students and a school guard at the elementary school “Vladislav Ribnikar” in the central city municipality of Vračar in Belgrade.

**Method:** The paper uses deduction as a general scientific method which, based on the general characteristics of events, draws individual conclusions about the multidimensionality of social meanings. As a special method, content analysis of media messages and professional texts is used.

**Results:** The social meanings of mass murders are complex and can be viewed through anthropological, moral, religious, historical, class, gender, psycho-social, security, and political dimension.

**Conclusion:** Murders of children at school result in deep traumatization of the public and community, reconsideration of the education and security system, strengthening of value-ideological and political divisions in society, and the great influence of information media and social networks in the construction of the tragic event.

**Keywords:** *mass murders, school, society, construction of meaning*

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## MINIMALNI UZRAST KRIVIČNE ODGOVORNOSTI I MEĐUNARODNI PRAVNI STANDARDI\*

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**Uvod:** Minimalni uzrast krivične odgovornosti kao institut krivičnog prava podrazumeva definisanje donje starosne granice počev od koje dolazi u obzir vođenje krivičnog postupka protiv konkretnog učinioca krivičnog dela. Iako se poslednjih godina maloletnički kriminalitet u svetskim razmerama odlikuje stabilnim ili blago opadajućim stopama, slučajevi u kojima su veoma mlada lica učinioci najtežih krivičnih dela aktuelizuju raspravu o potrebi snižavanja uzrasta krivične odgovornosti.

**Cilj:** Cilj rada jeste da se izdvoje dominantni međunarodnopravni standardi u domenu definisanja minimalnog uzrasta krivične odgovornosti, kao i ključni argumenti koji podupiru navedene standarde, a kako bi se potom ustanovilo da li su rešenja prisutna u srpskom pozitivnom pravu usklađena sa datim načelima, ili su pak nužna specifična usaglašavanja.

**Metode:** U radu su pri obradi pravnih dokumenata primenjeni normativno-logički i komparativno-pravni metod, odnosno analiza sadržaja u domenu interpretiranja relevantne naučne i stručne literature.

**Rezultati:** Univerzalni međunarodni dokumenti plediraju za što viši uzrast minimalne krivične odgovornosti, ali i za uvažavanje opštih interesa i posebno interesa oštećenih pri reagovanju na maloletnički kriminalitet. U značajnom broju evropskih i svetskih zemalja deca podležu krivičnoj odgovornosti počev od navršenih 14 godina.

**Zaključak:** Opredeljivanje minimalnog uzrasta krivične odgovornosti uslovljeno je zaštitom najboljeg interesa deteta, te naglašavanjem posebne odgovornosti države i društva prema deci i zadovoljavanju njihovih razvojnih potreba. S druge strane, zaštita interesa maloletnika ne sme biti u koliziji sa zaštitom oštećenih i zaštitom društva od kriminaliteta. Definisanju minimalnog uzrasta krivične odgovornosti ne sme se pristupati bez uvažavanja ukupnih socijalnih, ekonomskih, političkih i kulturnih prilika u datom nacionalnom okviru.

**Ključne reči:** *minimalni uzrast krivične odgovornosti, najbolji interes deteta, međunarodni standardi*

\* Rad je proistekao iz projekta „Društvene devijacije, kriminal i problemi ponašanja: uzroci i društvena reakcija“, čiju je realizaciju podržalo Ministarstvo nauke, tehnološkog razvoja i inovacija Republike Srbije (ev. broj 451-03-47/2023-01/200096)

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## MINIMUM AGE OF CRIMINAL RESPONSIBILITY AND INTERNATIONAL LEGAL STANDARDS\*

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**Introduction:** The minimum age of criminal responsibility as an institute of criminal law implies the definition of the age limit starting from which the conduct of criminal proceedings against a specific perpetrator of a criminal offense comes into consideration. Although in recent years, juvenile crime on a global scale has been characterized by stable or slightly decreasing rates, the most serious crimes committed by children actualize the discussion about the need to lower the age of criminal responsibility.

**Aim:** The objective of the paper is to highlight the dominant international legal standards in the domain of defining the minimum age of criminal responsibility, as well as the key arguments that support the stated standards, and then to establish whether the norms in Serbian positive law are in line with the given principles.

**Method:** Normative-logical and comparative-legal methods, as well as content analysis, were applied in the paper.

**Results:** Universal international documents plead for the highest possible age of minimum criminal responsibility, but also for the respect of general interests and especially the interests of the victims. In a significant number of European and world countries, children are subject to criminal responsibility starting at the age of 14.

**Conclusion:** Defining the minimum age of criminal responsibility is conditional on protecting the best interests of the child. It also emphasizes the special responsibility of the state and society towards children and meeting their developmental needs. On the other hand, the protection of the interests of minors must not conflict with the protection of the victim and the protection of society from crime. The issue of the minimum age of criminal responsibility must not be approached without taking into account the overall social, economic, political, and cultural conditions in the given national framework.

**Keywords:** *minimum age of criminal responsibility, the best interest of the child, international standards*

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## ZNAČAJ OBUKE OSOBLJA ZA PRIMENU INSTRUMENTATA PROCENE RIZIKA RECIDIVIZMA OSUĐENIH\*

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**Uvod:** Procena rizika recidivizma utiče na koncipiranje programa penalne rehabilitacije, bezbednost osoblja, drugih osuđenih, osoba koje posećuju zatvor, kao i društvene zajednice u koju se prestupnik najčešće vraća. Iako su razvojem instrumenata procene rizika recidivizma napravljeni veliki pomaci u odnosu na kliničku procenu, oni imaju određene manjkavosti, a primenom najboljih instrumenata, pod uslovom da procenu vrši obučeni službenik, može se očekivati tačnost oko 70%.

**Cilj:** Cilj ovog rada je analiza dostupnih istraživanja, te isticanje značaja obuke osoblja za primenu instrumenata procene rizika recidivizma koji su u upotrebi sa zatvorskom populacijom.

**Metode:** Za potrebe uvida u relevantne naučne izvore korišćena je pretraga elektronskih bibliografskih baza: KOBSON, Google Scholar, ResearchGate.

**Rezultati:** Analizom dostupnih radova utvrđeno je da je obuka ključna za uspešnu primenu dinamičkih instrumenata, te da je u direktnoj vezi sa pitanjem pouzdanosti procene. Pored početne, periodično treba vršiti i dodatne obuke osoblja, jer kontinuirana obuka smanjuje mogućnost da subjektivni stavovi imaju uticaj na procenu. Takođe, kontinuirana obuka omogućava da svi zaposleni na isti način razumeju kriterijume za procenu i da poseduju veštine za dosledno korišćenje instrumenta. Međutim, u praksi se neretko dešava da obuka osoblja izostane, te se sprovodi samo kada se u korektivnu praksu uvodi novi instrument. Posledica ovakve prakse je da pouzdanost opada, što doprinosi manjem poverenju u procenu. Rezultati istraživanja ukazuju da određen broj praktičara izražava sumnju u pouzdanost instrumenata. Razlog za to je činjenica da praktičari različito koriste instrument, jer nisu završili početnu ili dodatnu obuku i ne proverava se da li se instrument koristi na odgovarajući način. Tako se greške u proceni samo multiplikuju.

**Zaključak:** Sve navedeno ukazuje na značaj početne i periodične dodatne obuke osoblja. Takođe, na osnovu rezultata istraživanja zaključuje se da ukoliko izostane adekvatna obuka osoblja, upotreba dinamičkih instrumenata se ne preporučuje.

**Ključne reči:** *instrumenti procene, osuđeni, zatvor, obuka osoblja*

\* Rad je proistekao iz projekta „Društvene devijacije, kriminal i problemi ponašanja: uzroci i društvena reakcija”, čiju je realizaciju podržalo Ministarstvo nauke, tehnološkog razvoja i inovacija Republike Srbije (ev. broj 451-03-47/2023-01/200096)

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## THE IMPORTANCE OF STAFF TRAINING FOR THE APPLICATION OF RECIDIVISM RISK ASSESSMENTS OF THE CONVICTED\*

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**Introduction:** Recidivism risk assessment affects the design of penal rehabilitation programs, staff safety, other convicts, persons visiting the prison, as well as the social community to which the offender most often returns. Although the development of recidivism risk assessment instruments has made great progress compared to clinical assessment, they have certain shortcomings, and by applying the best instruments, provided that the assessment is performed by a trained officer, an accuracy of around 70% can be expected.

**Aim:** The aim of this paper is to analyze the available research, and highlight the importance of staff training for the application of recidivism risk assessment instruments which are used on prison population.

**Method:** For the purpose of gaining an insight into relevant scientific sources, the following electronic bibliographical data bases were searched: KOBSON, Google Scholar, ResearchGate.

**Results:** The analysis of the available papers found that training is key to the successful application of dynamic instruments, and that it is directly related to the issue of assessment reliability. In addition to the initial training, additional staff training should be carried out periodically, because continuous training reduces the possibility that subjective attitudes have an impact on the assessment. Also, continuous training allows all employees to understand the assessment criteria in the same way and to have the skills to use the instrument consistently. However, in practice, it often happens that staff training is missing, and it is carried out only when a new instrument is introduced into the corrective practice. The consequence of this practice is that reliability decreases, which contributes to less confidence in the assessment. The research results indicate that a certain number of practitioners express doubts about the reliability of the instruments. The reason for this is the fact that practitioners use the instrument differently, because they have not completed initial or additional training and it is not checked whether the instrument is used in an appropriate way. Thus, errors in assessment only multiply.

**Conclusion:** All of the above points to the importance of initial and periodic additional training of staff. Also, based on the results of the research, it is concluded that if there is no adequate training of the staff, the use of dynamic instruments is not recommended.

**Keywords:** *assessment instruments, convict, prison, staff training*

\* This paper is part of the project “Social Deviance, Crime, and Behavioral Problems: Causes and Social Response” supported by the Ministry of Science, Technological Development and Innovation of the Republic of Serbia (No. 451-03-47/2023-01/ 200096)



## KVALITET ZATVORSKOG ŽIVOTA OSUĐENIH ŽENA U SRBIJI: PRELIMINARNI NALAZI ISTRAŽIVANJA\*

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**Uvod:** Kvalitet zatvorskog života (Quality of prison life – QPL) je drugačiji i jedinstven u svakom zatvorskom sistemu. Međutim, literatura o QPL osuđenih žena u Srbiji je oskudna.

**Cilj:** Cilj rada je da se predstave preliminarni rezultati o QPL osuđenih žena u Srbiji. Istraživanje je sprovedeno u okviru PrisonLIFE projekta, koji finansira Fond za nauku Republike Srbije (br. 7750249).

**Metode:** Za prikupljanje podataka od 91 osuđenice koje su se nalazile na izvršenju kazne zatvora u KPZ za žene u Požarevcu korišćena je skala Merenje kvaliteta zatvorskog života (MQPL), prilagođena za upotrebu u Srbiji. Prosečna starost uzorka bila je 39,77 godina (SD=10,71, raspon 21–74), sa prosečnom dužinom izrečene kazne zatvora od 72,51 mesec (SD=82,59, raspon 2–480 meseci). Najveći broj ispitanica je prvi put u zatvoru (75,8%) i nalazi se u zatvorenom odeljenju (74,7%). Skoro jedna trećina uzorka je osuđena za krivična dela u vezi sa drogom (33,0%), a zatim slede teško ubistvo (11,0%) i ubistvo (8,8%).

**Rezultati:** Jednofaktorskom analizom varijanse ponovljenih merenja uz Bonferoni naknadna poređenja nađene su statistički značajne razlike između pet MQPL dimenzija [Vilksova Lambda=0,51, F(4,87)=20,53, p<0,001, parcijalni eta-kvadrat = 0,49]. Dimenzije Uslovi i porodični kontakt (M=3,15), Harmonija i Bezbednost (M=3,02, oba) imale su statistički značajno veći skor nego dimenzija Blagostanja i ličnog razvoja (M=2,86). Dimenzija Profesionalizam imala je najniži skor (M=2,78).

**Zaključak:** Nalazi ukazuju na potrebu da se unaprede profesionalizam, transparentnost, respozivnost, organizacija i doslednost u radu jedinog zatvora za žene u Srbiji, kao i doživljaj pravičnosti, proporcionalnosti i opravdanosti kazni i procedura. Prioritet treba da bude stvaranje okruženja koje pomaže osuđenicama u odustajanju od kriminalnog ponašanja, pripremi za otpust i razvoju njihovih potencijala, uključujući rad na kontrolisanju sopstvenih postupaka, donošenju odluka, osećanjima patnje, zatočeništva, napetosti ili emocionalnog stresa. Ukratko, nalazi predstavljaju osnovu za buduća istraživanja i poboljšanje QPL u Srbiji.

**Ključne reči:** *zatvor, kvalitet zatvorskog života, osuđenice, istraživanje, Srbija*

\* Rad je proistekao iz projekta PrisonLIFE, "Assessment and possibilities for improving the quality of prison life of prisoners in the Republic of Serbia: Criminological-penological, psychological, sociological, legal and security aspects" čiju je realizaciju podržao Fond za nauku, broj Projekta: 7750249

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## QUALITY OF PRISON LIFE OF FEMALE CONVICTS IN SERBIA: PRELIMINARY RESEARCH FINDINGS\*

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**Introduction:** Quality of prison life (QPL) is different and unique in each prison system. However, literature specifically focusing on the QPL for female prisoners in Serbia is scarce.

**Aim:** This paper presents preliminary findings on the QPL of female prisoners in Serbia. The research was conducted within the PrisonLIFE project, funded by the Science Fund of the Republic of Serbia (No. 7750249).

**Method:** Measuring the Quality of Prison Life (MQPL) survey, adapted for use in Serbia, was used to collect data from 91 female convicts who served time at the Correctional Institution for Women in Požarevac. The sample's average age was 39.77 (SD=10.71, range 21–74), with an average length of a prison sentence of 72.51 months (SD=82.59, range 2–480 months). The majority were first-time offenders (75.8%) and were assigned to the closed prison ward (74.7%). Almost one-third of the sample was imprisoned for drug-related offences (33.0%), followed by aggravated homicide (11.0%) and homicide (8.8%).

**Results:** Using a one-way repeated-measures ANOVA with post-hoc Bonferroni adjustments, significant differences in the five MQPL dimensions were found [Wilks' Lambda=0.51,  $F(4, 87)=20.53$ ,  $p<0.001$ , partial eta-squared=0.49]. The Conditions and Family Contact, Harmony and Security dimensions had significantly higher QPL ( $M=3.15$  and  $M=3.02$ , respectively) than the Well-being and Development dimension ( $M=2.86$ ). The Professionalism dimension had the lowest QPL ( $M=2.78$ ).

**Conclusion:** The findings indicate the need for enhancing the professionalism, transparency, responsiveness, organization, and consistency of the only prison for women in Serbia and the perceived fairness, proportionality, and legitimacy of punishments and procedures. Creating an environment that helps convicts with offending behavior, preparation for release and the development of their potential, and addressing their feelings of agency, decision-making, feelings of suffering, confinement, tension or emotional stress should be prioritized. In summary, these findings provide a foundation for future research and improvement of QPL in Serbia.

**Keywords:** *prison, quality of prison life, female convicts, research, Serbia*

\* This paper is part of the project PrisonLIFE, “Assessment and possibilities for improving the quality of prison life of prisoners in the Republic of Serbia: Criminological-penological, psychological, sociological, legal and security aspects” supported by the Science Fund, No. 7750249

## POSTPENALNI TRETMAN

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**Uvod:** Jedan od ključnih elemenata u radu sa osuđenim licima je i postpenalni tretman (sastavni deo programa postupanja), i to za lica kojima je potrebno. Postpenalni prihvata ili pomoć podrazumeva jednu od faza u resocijalizaciji osuđenog lica. Započinje na početku izdržavanja kazne, ili najkasnije tri meseca pre otpusta. Podrazumeva koordinirani rad više sistema u društvenoj zajednici. Počinje od službenika tretmana u zavodu do poverenika koji svoj rad usaglašava sa sistemom socijalne zaštite, policijskom upravom, lokalnom zajednicom, nevladinim sektorom i ostalim raspoloživim i dostupnim resursima. Svrha postpenalne pomoći je uključivanje osuđenog u društvenu zajednicu, povratak porodici, mogućnost pronalaska posla, obezbeđivanje adekvatne zdravstvene zaštite. Dok se nalazi na izdržavanju kazne, osuđeno lice upoznaje se sa svojim obavezama i pravima, kao što je i pravo na troškove prevoza, koje predviđa član 182 Zakona o izvršenju krivičnih sankcija, u kome se navodi da je zavod u obavezi da osuđenom obezbedi troškove prevoza do mesta prebivališta ukoliko on sam nije u mogućnosti da ih obezbedi. Zavod može obezbediti osuđenom i ličnu kartu, ukoliko je ne poseduje, kao jedan od najznačajnijih ličnih dokumenata, a koji mu je potreban pri samom izlasku iz zavoda na slobodu.

**Cilj:** Rad ima za cilj da objasni problem postpenalnog tretmana kao načina delovanja na osuđena lica radi sprečavanja ponovnog vršenja krivičnih dela i prihvatanja društveno prihvatljivih obrazaca ponašanja u cilju njihovog daljeg funkcionisanja u društvenoj zajednici.

**Metode:** U radu su primenjeni pravno dogmatski i uporedno-pravni metod, kao i iskustvo u funkcionisanju postpenalne pomoći u praksi.

**Rezultati:** U nedostatku stručnih kadrova, kao i zbog ekonomske situacije u državi, postpenalni tretman i pomoć se vrlo malo sprovode.

**Zaključak:** Analiza pokazuje da se postpenalnom tretmanu ne posvećuje dovoljna pažnja, kako od strane javnosti, tako i od strane države, kroz nedonošenje populacionih mera i adekvatnih zakonodavnih rešenja.

**Ključne reci:** *postpenalni tretman, osuđeno lice, zatvori*

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## POST-PENAL TREATMENT

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**Introduction:** In working with convicted persons, post-penal treatment (an integral part of the treatment program) is one of the key elements for persons who need it. Post-penal reception or assistance is one of the stages in the resocialization of a convicted person. It starts at the beginning of serving a sentence or no later than three months before release. It implies the coordinated work of several systems in the social community. It starts from treatment officers in the institution to commissioners who coordinate their work with the social protection system, the police department, the local community, the non-governmental sector, and other available and accessible resources. The purpose of post-penal assistance is to include convicted persons in the social community as soon as possible, enable them to return to their families, give them the possibility to find a job, and provide adequate health care. While serving their sentence, convicted persons are informed of their obligations and rights, such as the right to transportation costs, which is referred to in Article 182 of the Law on the Execution of Criminal Sanctions, which states that the institution is obliged to cover the transportation costs to a convicted person to the place of residence if they are not able to provide them themselves. The institution can also provide a convict with an ID if they do not have one, as it is one of the most important personal documents they need when released from an institution.

**Aim:** The aim is to explain the problem of post-penal treatment, as a way to act on convicted persons with the aim of not further committing criminal acts, but accepting socially acceptable patterns of behavior with the aim of their further functioning in the social community,

**Method:** A legally dogmatic and comparative legal method was applied, as well as experience in the functioning of post penal assistance in practice.

**Results:** Due to the lack of professional staff and the economic situation in the country, post-penal treatment and assistance is rarely carried out.

**Conclusion:** In the conclusion it can be stated that both the public and the state do not pay enough attention to post-penal treatment through the failure to pass population measures and adequate legislative solutions.

**Keywords:** *post-penal treatment, convicted persons, prisons*

INDIKATORI KVALITETA ŽIVOTA  
QUALITY OF LIFE INDICATORS

## SOCIJALNA ZAŠTITA I ŽIVOTNI STANDARD OSOBA S INVALIDITETOM, ZAKONODAVNI OKVIR I PRAKTIČNA PROVEDBA\*

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**Uvod:** Konvencija o pravima osoba s invaliditetom (KPOI) pruža okvir za unaprjeđenje socijalne zaštite i životnog standarda osoba s invaliditetom (OSI), prepoznajući njihove jednaka ljudska i građanska prava i potrebu za uključenjem u sve aspekte društva, jednako uživanje svih ljudskih prava i osnovnih sloboda, uključujući pravo na socijalnu zaštitu, rad, obrazovanje i zdravstvenu zaštitu. Države potpisnice Konvencije obvezale su se na poduzimanje odgovarajućih koraka kako bi zaštitile i promicale ostvarenje ovog prava bez diskriminacije na osnovi invaliditeta.

**Cilj:** U ovom istraživanju istraživana je usklađenost nacionalnog zakonodavnog okvira Republike Hrvatske s Konvencijom, s posebnim naglaskom na socijalnu zaštitu i životni standard OSI.

**Metode:** Analiziran je nacionalni zakonodavni okvire te uspoređena njegova usklađenost s KPOI-om. Na temelju analize dokumentacije formirani su vodiči za fokusne grupe. U sklopu istraživanja provedeno je 15 fokusnih grupa u Zagrebu, Osijeku, Splitu i Rijeci, a sudionici su bile OSI (N=39), roditelji djece s teškoćama u razvoju (N=20) i stručnjaci (N=31) zaposleni u institucijama koje provode politike socijalne zaštite OSI. Po provođenju fokusnih grupa audio-snimke su transkribirane, kodirane i analizirane kvalitativnom metodom tematske analize.

**Rezultati:** Dobiveni rezultati indiciraju formalnu usklađenost zakonodavnog okvira uz naglasak potpunog izostanka regulacije socijalnog stanovanja. Praktična provedba propisa usklađenih s Konvencijom susreće se s izazovima mehanizma prvostupanjskog vještačenja OSI, informiranja OSI o dostupnim pravima i uslugama, ostvarivanje istih prava i usluga te tromost sustava u uspostavljanju socijalnih politika utemeljenih na dobroj praksi.

**Zaključak:** Rezultati istraživanja ukazuju na nepotpunu usklađenosti nacionalnog zakonodavnog okvira s KPOI-om za poboljšanje socijalne zaštite i životnog standarda osoba s invaliditetom. Također, naglašavaju potrebu praćenja usklađenosti i implementacije mjera koje će osigurati jednak pristup i prava za sve OSI, u skladu s KPOI-om.

**Ključne reči:** *socijalna zaštita, životni standard, usklađenost zakonodavnog okvira*

\* Rezultati predstavljeni u radu dio su rezultata projekta Platforma 50+. Platforma 50+ je EU projekt iz Operativnog programa Učinkoviti ljudski potencijali 2014–2020. čiji je nositelj Hrvatski savez udruga osoba s invaliditetom (SOIH) u partnerstvu s 11 udruga osoba s invaliditetom i Edukacijsko-rehabilitacijskim fakultetom Sveučilišta u Zagrebu.

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## SOCIAL PROTECTION AND STANDARD OF LIFE OF PERSONS WITH DISABILITIES, LEGISLATIVE FRAMEWORK AND PRACTICAL IMPLEMENTATION\*

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**Introduction:** The Convention on the Rights of Persons with Disabilities (CRPD) provides a framework for improving the social protection and living standards of persons with disabilities (PWDs). It recognizes their equal human and civil rights and the need for inclusion in all aspects of society, equal enjoyment of all human rights and fundamental freedoms, including the right to social protection, work, education and health care. The signatory states to the Convention have undertaken to take appropriate measures to protect and promote the realization of this right without discrimination on the basis of disability.

**Aim:** This study examined the compatibility of the national legal framework of the Republic of Croatia with the Convention, focusing on social protection and the standard of living of PWDs.

**Method:** The national legal framework was analyzed and its compliance with the CRPD was compared. Focus group guides were prepared based on the analysis of the documentation. As part of the research, 15 focus groups were conducted in Zagreb, Osijek, Split and Rijeka. The participants were PWDs (N=39), parents of children with developmental disabilities (N=20) and experts (N=31) working in institutions implementing social protection measures for PWDs. After conducting the focus groups, the audio recordings were transcribed, coded and analyzed using the qualitative method of thematic analysis.

**Results:** The results show that the legal framework is formally complied with CRPD, with emphasis on the complete lack of regulation of social housing. The practical implementation of the provisions harmonized with the Convention faces the challenges of the mechanism of first instance expert examination of PWDs, information of PWDs on available rights and services, the exercise of these rights and services, and the slowness of the system in establishing social policies based on best practices.

**Conclusion:** The research findings show that the national legal framework is not fully in line with CRPD to improve social protection and living standards of persons with disabilities. The findings also highlight the need to monitor compliance with CRPD and to take measures to ensure equal access and rights for all persons with disabilities.

**Keywords:** *social protection, standard of living, compatibility of the legal framework*

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\* This paper is part of the project “Platforma 50+”. Platform 50+ is an EU project from the Operational Program Effective Human Resources 2014-2020 supported by the Croatian Association of Persons with Disabilities (SOIH) in partnership with 11 associations of persons with disabilities and the Faculty of Education and Rehabilitation Sciences of the University of Zagreb.

## MOTIVACIONI PROJEKAT „ZDRAV ŽIVOT“ ZA ADOLESCENTE SA OŠTEĆENJEM VIDA

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**Uvod:** Održavanje zdrave težine izuzetno je važno za svakog čoveka, jer omogućava dobru pokretljivost, bolju sliku o sebi i zadovoljstvo životom. Ovo je utoliko važnije za mlade sa posebnim potrebama, posebno za one sa oštećenjem vida, jer nisu dovoljno motivisani da sami vežbaju. Tokom zatvaranja društva zbog pandemije Corona virusom, mladi su ostajali kod kuće i preterano konzumirali hranu. Zato smo u IRIS centru započeli projekat „Zdrav život“, koji smo longitudinalno postavili. Okupili smo tim stručnjaka koji rade u različitim oblastima: pedagog, profesor sporta, medicinska sestra, nutricionista i treneri raznih sportskih aktivnosti: učitelj joga, učitelj zumbе, fitnes trener, nastavnik raznih vežbi snage itd. Svih sedam slabovidih učenica iz Centra IRIS pozvano je na projekat, njih šest se odazvalo, a dve su kasnije odustale.

**Cilj:** Cilj projekta je da učenice postepeno nauče zdraviji način života i pritom izgube nekoliko kilograma. Ukupna početna težina članica je 396,9 kg (jedna devojka imala je 150 kilograma!). Devojke imaju različite ciljeve (dobiti formu, smršati, ojačati telo i tako dalje).

**Metode:** Jednom nedeljno vežbamo zajedno: šetamo okolnim brdima ili parkom, vežbamo u teretani ili se bavimo sportom na školskom igralištu, ili vežbamo na spravama za fitnes. Na učešće smo pozvali i osobu koja je izgubila čak 120 kilograma (učestvovala je i u emisiji The biggest loser Slovenija). Rezultati su mereni na mesec dana.

**Rezultati:** Rezultati posle četiri meseca pokazuju da je težina opala za 22,7 kilograma, to znači 5,7%. Učenice ističu da su u boljoj formi i da se lakše kreću, a promenile su i neke od navika, kao što je korišćenje energetskih i slatkih pića te obroka nakon večere.

**Zaključak:** Na kraju projekta pripremiće se knjižica sa uputstvima za lakše mršavljenje za adolescente sa posebnim potrebama i motivacionim segmentima. Želja je da se projekat nastavi i u narednoj školskoj godini.

**Ključne reči:** *prekomerna težina, mladi sa posebnim potrebama, motivacioni projekat*

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## MOTIVATION PROJECT “HEALTHY LIFE” FOR ADOLESCENTS WITH VISUAL IMPAIRMENT

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**Introduction:** Maintaining a healthy weight is extremely important for every person, as it enables good mobility, better self-image, and satisfaction with life. This is even more important for young people with special needs, especially those with visual impairments, as they are not sufficiently motivated to exercise. During the COVID-19 lockdown, young people stayed at home and ate excessively. That is why we started the “Healthy Life” project at the IRIS Center, which we set up longitudinally. We put together a team of experts who work in different fields. All 7 students from the students’ home were invited to the project. Six of them responded, and 2 dropped out later. All of them are visually impaired.

**Aim:** The aim of the project is for the participants to gradually learn a healthier way of life and lose a few kilos in the process. The total initial weight of the permanent members was 396.9 kg (one of the members weighed 150 kilograms!). The girls have different goals (get fit, lose weight, strengthen their body, etc.).

**Method:** Once a week, we exercise together. We also invited a person who lost as much as 120 kilograms to participate (The biggest loser Slovenia). We measure the results every month.

**Results:** The current results show that the weight has dropped rapidly. The girls report that they are much more fit and that they generally move more easily. They also gave up energy and sugary drinks and the after-dinner meal.

**Conclusion:** At the end of the project, we will make a booklet with instructions for easier weight loss for adolescents with special needs and motivational segments. The participants’ wish is for the project to continue in the next school year as well.

**Keywords:** *overweight, young people with special needs, motivational project*

## MOGUĆNOSTI NEOVISNOG ŽIVLJENJA OSOBA S INVALIDITETOM IZ PERSPEKTIVE STRUČNJAKA IZ SUSTAVA PODRŠKE

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**Uvod:** Koncept neovisnog življenja usko je povezan s razvojem „pokreta za neovisno življenje“, iniciranog od samih osoba s invaliditetom, s težnjom ostvarivanja prava na život u zajednici. S njime su povezani i pojmovi „život u zajednici“ i „život uz podršku“, a promiče prilagodbu okoline i potporu osobama s invaliditetom u postizanju samovrednovanja, jednakih mogućnosti i punog sudjelovanja u društvu kao ravnopravnih građana. Pritom je naglasak na emancipaciji osoba s invaliditetom u svim životnim područjima, uz jednak stupanj slobode u odnosu na ostalu populaciju u područjima obrazovanja, slobodnog vremena, ekonomskog, društvenog i političkog života. U ovom radu prikazani su rezultati jednog dijela sveobuhvatnijeg istraživanja o čimbenicima neovisnog življenja osoba s invaliditetom u Hrvatskoj, provedenog u okviru znanstveno-istraživačkog projekta „Platforma 50+“, čiji je nositelj Zajednica saveza osoba s invaliditetom Hrvatske, a partner Edukacijsko-rehabilitacijski fakultet Sveučilišta u Zagrebu.

**Cilj:** Glavni cilj kvalitativnog istraživanja obuhvaćenog ovim radom bio je dobiti uvid u mogućnosti neovisnog življenja osoba s invaliditetom u jednoj državnoj regiji, iz perspektive stručnjaka koji im pružaju podršku.

**Metode:** U istraživanju je korišten princip namjernog uzorkovanja nakon kojeg je proveden fokus grupni intervju sa sudionicima s područja Splitsko-dalmatinske županije, stručnjaka s iskustvom rada s osobama s invaliditetom u različitim sustavima. U svrhu kvalitativne analize podataka primijenjena je tematska analiza, tijekom koje su definirana četiri tematska područja: obilježja svakodnevnog života; oblici sustavne i stručne podrške; pristup prostorima, objektima i uslugama u zajednici; te samoodlučivanje, s pripadajućim temama i podtemama.

**Rezultati i zaključak:** Rezultati su ukazali na ograničene mogućnosti i još uvijek prevladavajuće prepreke za neovisno življenje, kao i vrlo značajne preporuke za unaprijeđenje javne politike i drugih pretpostavki neovisnog življenja osoba s invaliditetom u obuhvaćenoj regiji, ali i šire.

**Ključne reči:** *neovisno življenje osoba s invaliditetom, pravo na život u zajednici, perspektiva stručnjaka*

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## INDEPENDENT LIVING POSSIBILITIES OF PEOPLE WITH DISABILITIES FROM THE PERSPECTIVE OF PROFESSIONALS FROM SUPPORT SYSTEMS

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**Introduction:** The concept of independent living is closely related to the development of The Independent Living Movement, initiated by people with disabilities themselves to realize the right to live in the community. The terms “community living” and “supported living” are also associated with it and refer to the adaptation of the environment and support for people with disabilities to achieve self-determination, equal opportunities and full participation in society as equal citizens. The focus is on the emancipation of people with disabilities in all areas of life, with an equal level of freedom compared to the rest of the population in the areas of education, leisure, economic, social and political life. This paper presents the results of one part of a comprehensive study on the factors for independent living of people with disabilities in Croatia, conducted within the scientific research project “Platform 50+” under the leadership of the Croatian Association of People with Disabilities and with the Faculty of Education and Rehabilitation Sciences of the University of Zagreb as a partner.

**Aim:** The main objective of the qualitative research in this paper was to gain insight into the real possibilities for independent living of people with disabilities in one region of the country from the perspective of professionals who support them.

**Method:** In the research, the principle of intentional sampling was applied, after which a focus group interview was conducted with participants from Splitsko-Dalmatinska County who have experience in working with people with disabilities in different systems. For the purpose of qualitative analysis of the obtained results, a thematic analysis was conducted, defining four thematic areas: Characteristics of Daily Living, Forms of Systematic and Professional Support, Access to Spaces, Facilities and Services in the Community, and Self-Determination, with associated themes and subthemes.

**Results and conclusion:** The findings point to limited opportunities and remaining barriers to achieving independent living, as well as very important recommendations for improving public policies and other conditions for independent living for people with disabilities in the region studied and beyond.

**Keywords:** *independent living, people with disabilities, professional perspective*

## TIP STANOVANJA KAO FAKTOR SAMOODREĐENJA OSOBA SA UMERENOM INTELEKTUALNOM OMETENOŠĆU\*

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**Uvod:** Prethodna istraživanja su pokazala da je nivo samoodređenja osoba sa intelektualnom ometenošću determinisan različitim činiocima. Tip stanovanja je jedan od značajnih činilaca razvoja i praktikovanja te veštine.

**Cilj:** Cilj rada je utvrđivanje razlike u nivou samoodređenja između osoba sa umerenom intelektualnom ometenošću koje žive u različitim tipovima stanovanja.

**Metode:** Uzorkom je obuhvaćeno 87 odraslih osoba sa umerenom intelektualnom ometenošću, oba pola, koji žive u različitim tipovima stanovanja: u primarnim porodicama, institucijama ili programu stanovanja uz podršku. Za prikupljanje podataka o nivou samoodređenja korišćena je ARC skala samoodređenja.

**Rezultati:** Utvrđene su statistički značajne razlike između ispitanika koji žive u različitim tipovima stanovanja na nivou ukupnog samoodređenja ( $F=14,500$ ;  $p<.001$ ) i komponenti samoodređenja: autonomije ( $F=17,995$ ;  $p<.001$ ), samoregulacije ( $F=8,011$ ;  $p=.001$ ), psihološke osnaženosti ( $F=15,634$ ;  $p=.005$ ) i samorealizacije ( $F=5,837$ ;  $p=.004$ ). Nivo samoodređenja osoba sa umerenom intelektualnom ometenošću koje stanuju u zajednici uz podršku statistički je značajno viši od nivoa samoodređenja osoba koje stanuju u primarnim porodicama ( $p<.001$ ) i institucijama ( $p=.004$ ). Osobe koje stanuju u institucijama imaju viši nivo samoodređenja od onih koje žive sa svojim porodicama ( $p=.038$ ).

**Zaključak:** Stanovanje u zajednici uz podršku predstavlja optimalan ambijent za razvoj veština samoodređenja odraslih osoba sa umerenom intelektualnom ometenošću. Potrebno je intenzivirati praksu stanovanja u zajednici uz podršku za osobe sa umerenom intelektualnom ometenošću, s obzirom na to da je utvrđen stimulativan uticaj ovog tipa stanovanja na razvoj i praktikovanje veština samoodređenog ponašanja.

**Ključne reči:** *institucija, porodica, samoodređenje, stanovanje uz podršku, umerena intelektualna ometenost*

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## TYPE OF HOUSING AS A FACTOR OF SELF-DETERMINATION IN PERSONS WITH MODERATE INTELLECTUAL DISABILITY\*

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**Introduction:** Previous research has shown that the level of self-determination in people with intellectual disability is determined by various factors. The type of housing is one of the important factors in the development and practice of that skill.

**Aim:** The objective of the paper was to determine the difference in the level of self-determination between persons with moderate intellectual disability who live in different types of housing.

**Method:** The sample included 87 adults with moderate intellectual disability, of both genders, living in different types of housing: in primary families, institutions, or a supported housing program. The ARC self-determination scale was used to collect data on the level of self-determination.

**Results:** Statistically significant differences were found between respondents living in different types of housing at the level of total self-determination ( $F=14.500$ ;  $p<.001$ ) and components of self-determination: autonomy ( $F=17.995$ ;  $p<.001$ ), self-regulation ( $F=8.011$ ;  $p=.001$ ), psychological empowerment ( $F=15.634$ ;  $p=.005$ ) and self-realization ( $F=5.837$ ;  $p=.004$ ). The level of self-determination in persons with moderate intellectual disabilities within the supported community living program was statistically significantly higher than the level of self-determination in persons living in primary families ( $p<.001$ ) and institutions ( $p=.004$ ). People who lived in institutions had a higher level of self-determination than those who lived with their families ( $p=.038$ ).

**Conclusion:** The supported community living program is an optimal environment for the development of self-determination in adults with moderate intellectual disabilities. It is necessary to intensify the practice of supported housing in a community for people with moderate intellectual disability, considering the determined stimulating effect on the development and practice of self-determined behavior skills.

**Keywords:** *institution, family, self-determination, supported housing, moderate intellectual disability*

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## BAVLJENJE SPORTOM MLADIH NAKON REHABILITACIJE\*

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**Uvod:** Nakon rehabilitacije ili lečenja u bolnicama mladi sa invaliditetom često nisu u mogućnosti da se bave raznim sportovima zbog fizičkih ograničenja vezanih za bolest ili invaliditet. Ove okolnosti dovode do psiholoških problema, smanjenog samopoštovanja i samopouzdanja.

**Cilj:** U sklopu međunarodnog projekta „Youths Post-Rehab Sport Activation - Re-Sport“ iz Erasmus sport programa sprovedeno je istraživanje kako bi se utvrdilo koje fizičke aktivnosti mladi ljudi sa invaliditetom preferiraju, koja su njihova očekivanja, izazovi i zapažanja.

**Metode:** Istraživanje je sprovedeno na uzorku mladih osoba sa invaliditetom (n=230) u Sloveniji, Austriji, Italiji, Hrvatskoj, Srbiji, Švedskoj, Grčkoj i Turskoj. Uzorak se sastojao od 117 muškaraca, 111 žena i dve osobe koje su odbile da odgovore na ovo pitanje. Ispitanici su bili starosti između 15 i 26 godina. Većina ispitanika je izjavila da je njihov invaliditet fizički, sa stopom od 44,35%. Naše istraživanje obuhvatilo je i mlade osobe sa neurološkim (22,61%), senzornim (17,83%) i mentalnim (15,22%) smetnjama, a otkrilo je da se mladi ljudi ne izoluju od društvenog života uprkos invaliditetu i imaju jaku želju za druženjem.

**Rezultati i zaključak:** Na pitanje da li žele da se bave fizičkim ili sportskim aktivnostima, skoro svi ispitanici ispoljili su pozitivan stav, sa stopom od 91,30%. Istraživanje je takođe otkrilo da je stopa mladih osoba sa invaliditetom koji najmanje jednom nedeljno učestvuju u nekoj sportskoj/ fizičkoj aktivnosti čak 71%. Kada se procenjuju sportske aktivnosti kojima ispitanici žele da se bave, vodeće aktivnosti su plivanje (23,55%), atletika (13,04%), fudbal (10,87%), biciklizam (9,06%) i stoni tenis (7,97%).

**Ključne reči:** mlade osobe, fizička aktivnost, fizički invaliditet, plivanje

\* Rad je nastao kao rezultat rada na projektu “Youths Post-Rehab Sport Activation - Re-Sport” iz Erasmus sport programa koje finansira Evropska komisija, referentni broj 622072-EPP-1-2020-1-SI-SPO-SCP

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## INVOLVEMENT IN SPORTS OF YOUNG PEOPLE WITH DISABILITIES AFTER REHABILITATION\*

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**Introduction:** After rehabilitation or treatment in hospitals, young people with disabilities are often unable to participate in various sports due to physical limitations related to the disease or disability. These circumstances lead to psychological problems, reduced self-esteem and self-confidence.

**Aim:** As part of the international project “Youths Post-Rehab Sport Activation - Re-Sport” from the Erasmus sport program, research was conducted with the aim of determining which physical activities young people with disabilities prefer, what are their expectations, challenges and observations.

**Method:** The research was conducted on a sample of young people with disabilities (n=230) in Slovenia, Austria, Italy, Croatia, Serbia, Sweden, Greece and Turkey. The sample consisted of 117 men, 111 women and two people who refused to answer this question. The respondents were aged between 15 and 26 years. The majority of respondents stated that their disability was physical, with a rate of 44.35%. Our research included young people with neurological (22.61%), sensory (17.83%) and mental (15.22%) disabilities, and revealed that young people do not isolate themselves from social life despite their disability and have a strong the desire to socialize.

**Results and conclusion:** When asked whether they want to engage in physical or sports activities, almost all respondents expressed a positive attitude with a rate of 91.30%. The research also revealed that the rate of young people with disabilities who participate in a sport/physical activity at least once a week is as high as 71%. When evaluating the sports activities that respondents want to engage in, the leading activities are swimming (23.55%), athletics (13.04%), football (10.87%), cycling (9.06%), and table tennis (7.97%).

**Keywords:** *young people, physical activity, physical disability, swimming*

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## EMPLOYABILITY SUPPORT AND BARRIERS AMONG INDIVIDUALS WITH FUNCTIONAL DIVERSITY – A SYSTEMATIC REVIEW

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**Introduction:** Employability refers to “capability to move self-sufficiently within the labor market to realize potential through sustainable employment”. Some authors analyze employability as an outcome in terms of person’s subjective or objective chance of a job on the labor market, whereas others focus on employability as a set of individual and contextual antecedents of sustainable employment. In the last few decades, research on employability has blossomed which resulted in a great volume of literature coupled with the variety of contexts and populations among which employability is studied. Among the people with functional diversity, understanding factors that support or impede employability is a key element in promoting social inclusion.

**Aim:** The aim of this study is to provide a systematic review of the individual and contextual factors that relate to employability of individuals with functional diversity. In addition, comparing the findings from multiple primary studies the study contributes to explaining the current inconsistencies.

**Method:** We conducted a comprehensive search for relevant publications across different databases (i.e., PsycINFO, Web of Science, Business Source Premier). We used combinations of keywords pertinent to the employability and functional diversity in order to perform qualitative analysis of the key relationships.

**Results:** Preliminary results show inconsistency in theorizing and measurement, as well as a lack of insight into the “how” of the theoretical framework. Moreover, individuals with functional diversity experience a range of barriers to employability, which vary depending on the context where studies are conducted. Finally, the results substantially vary depending on the specific conceptualization of employability, measurement, and functional diversity in question.

**Conclusion:** We unpack the antecedents of employability increasing insight into the complexity of its promotion among the individuals with functional diversity. From the societal standpoint, this is relevant in promoting decent work for all. With the current labor shortage in key societal sectors, societies need workers to develop beyond organizational boundaries.

**Keywords:** *employability, functional diversity, systematic review*

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VASPITANJE I OBRAZOVANJE OSOBA U  
RIZIKU I SA SMETNJAMA U RAZVOJU

EDUCATION AND UPBRINGING OF  
AT-RISK INDIVIDUALS AND INDIVIDUALS WITH  
DEVELOPMENTAL DISABILITIES

## TRANSITION FROM PRE-PRIMARY TO THE PRIMARY EDUCATION SYSTEM FOR CHILDREN WITH CEREBRAL VISUAL IMPAIRMENT: A CASE STUDY

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**Introduction:** Cerebral visual impairment (CVI) is an umbrella term for a wide range and combinations of brain-based visual dysfunctions. Children with CVI can be enrolled in different primary education programs depending on their functional characteristics and learning abilities. To date, no research has yet addressed the transition of children with CVI from pre-primary to primary education in Slovenia.

**Aim:** The aim of the study was to investigate the practice in the transition process of children with CVI from pre-primary to primary education in Slovenia. We were interested in whether the transition differs according to the type of educational program and which activities in the process were identified as key from the perspective of different stakeholders.

**Method:** A multi-case study was used. The data collection techniques used were a review of the clinical and educational records of four children with CVI with or without additional disabilities and semi-structured interviews with their educators, teachers, and parents about the activities involved in the transition process. Data analysis was carried out qualitatively.

**Results:** The results of the study showed that the transition of children with CVI from pre-primary to primary education was mostly carried out in a team-based manner within the child's education team. The most active role in putting the child-centered transition process into practice is played by the teacher of the visually impaired. The activities common to the cases were identified as key steps.

**Conclusion:** In Slovenia, there is a lack of a generally accepted guideline for the transition of children with CVI from pre-primary to primary education. Effective integration of children with CVI into educational settings requires a collaborative and team-based approach to the transition process and well-defined steps and responsibilities of the different stakeholders in the process.

**Keywords:** *cerebral visual impairment, transition, the key steps, team-based approach*

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## PRSTIMA DO ZVEZDA – ASTRONOMIJA ZA DECU OŠTEĆENOG VIDA

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**Uvod:** Deca oštećenog vida često imaju pogrešne predstave o svetu oko sebe. Što manje vide, to su manje angažovani na spontanom posmatranju sveta. Ako saznanja o svom okruženju stižu samo kroz opis drugih, a ne kroz sopstveno iskustvo, njihovi perceptivni procesi su sporiji ili poremećeni. Samoposmatranje prirode i prirodnih fenomena je posledično nejasno, zaključci su pogrešni, predstave su nepovezane i slabo konsolidovane, a predstave odnosa i pojmova su često nepotpune. Učenje nauke je važno jer, pored sticanja naučnog znanja, učenici razvijaju sposobnost razmišljanja i rešavanja problema na logičan i naučni način. Danas se časovi prirodnih nauka zasnivaju na principu konstruktivizma, u kojem deca deluju kao aktivni učesnici u procesu učenja. Budući da slepa i slabovidna deca doživljavaju svet na drugačiji način od onih sa punim čulima, pomažemo u učenju nauke prilagođavajući metode i nastavna sredstva koja omogućavaju aktivno učenje slepim i slabovidnim učenicima i doprinose trajnijem saznanju, dok istovremeno smanjuju mogućnost mogućih zabluda.

**Cilj:** Cilj rada bio je da ispitamo saznanja i zablude pri aktivnom učenju sa učenicima oštećenog vida.

**Metode:** Kako bismo ispunili postavljeni cilj, kreirali smo koncept modela kutije koji prikazuje sazvežđa, tablu sa povezujućim žicama i taktilne slike pojedinačnih sazvežđa. Osnovne informacije o svakom sazvežđu ispisane su uvećanim štampanim slovima i Brajevom azbukom. Testirali smo uređaj sa pet slepih i pet slabovidnih učesnika. Prvo smo proverili njihovo opšte znanje iz astronomije koristeći metodu polustrukturisanog intervjua, a takođe smo popunili kontrolnu listu. Nakon usmenog objašnjenja, prezentacije sa taktilnim slikama i iskustvenog učenja uz demonstracionu kutiju, ponovo smo testirali znanje učesnika kontrolnom listom.

**Rezultati:** Rezultati su pokazali poboljšanje u usvajanju znanja.

**Zaključak:** Možemo reći da se razumevanje koncepta sazvežđa značajno poboljšalo, a učesnici su eliminisali neke zablude o univerzumu.

**Ključne reči:** *deca oštećenog vida, astronomija, modeli sazvežđa, taktilne slike*

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## FINGERS TO THE STARS – ASTRONOMY FOR VISUALLY IMPAIRED CHILDREN

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**Introduction:** Children with visual impairment often have wrong ideas about the world around them. The less they see, the less commitment they show to the spontaneous observation of the world. If they acquire knowledge about their surroundings only through the description of others and not through their own experience, their perceptual processes are slower or disrupted. The mere observation of nature and natural phenomena is consequently unclear, the conclusions are wrong, the representations are disjointed and poorly consolidated, and the representations of relationships and concepts are often incomplete. Learning science is important because, in addition to acquiring science knowledge, students develop the ability to think and solve problems in a logical and scientific way. Today, science lessons are based on the principle of constructivism, in which children act as active participants in the learning process. Since children with visual impairment perceive the world in a different way than those with full senses, we help each other in learning science by adapting methods and teaching aids that enable active learning for students with visual impairment and contribute to more permanent knowledge, while at the same time reducing the possibility of possible misconceptions.

**Aim:** The aim of the workshop was to examine knowledge and misconceptions in active learning with visually impaired children.

**Method:** That is why we created a box model concept that shows the constellations, a board with connecting cords and touch images of the individual constellations. Basic information about each constellation is written in enlarged print and braille. We tested the devices with five blind and five partially sighted participants. First, we checked their general knowledge of astronomy using a semi-structured interview method, and we also filled out a checklist. After an oral explanation, presentation with tactile pictures, and experiential learning with a demonstration box, we tested the participants' knowledge again with a checklist.

**Results:** The results showed an improvement in the assimilation of knowledge.

**Conclusion:** In the conclusion we can say that the understanding of the concept of the constellation improved significantly, but the participants eliminated some misconceptions about the universe.

**Keywords:** *children with visual impairment, astronomy, constellation models, tactile images*

## SPECIFIČNOSTI ČITANJA UČENIKA SA OŠTEĆENJEM VIDA

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**Uvod:** Problem istraživanja usmeren je na ispitivanje razlika u brzini čitanja i razumevanju pročitano kod učenika sa oštećenjem i bez oštećenja vida, kao i subjektivnih teškoća čitanja sa kojima se susreću slabovidni učenici osnovnoškolskog uzrasta, kako bi se nastavni proces mogao bolje prilagoditi njihovim potrebama.

**Cilj:** 1) Utvrditi razlike u brzini čitanja između učenika sa oštećenjem i bez oštećenja vida; 2) Utvrditi nivo razumevanja pročitano poznatog i nepoznatog teksta i 3) Utvrditi subjektivne teškoće učenika koje se javljaju prilikom čitanja.

**Metode:** Za ispitivanje brzine čitanja i razumevanja pročitano upotrebljen je Jednominutni test glasnog čitanja (Furlan, 1972), Trodimenzionalni test čitanja Helen Saks i tekstovi iz čitanke namenski odabrani za ovo istraživanje u skladu sa uzrastom ispitanika. Svi tekstovi bili su nepoznati ispitanicima.

**Rezultati:** Dobijeni rezultati ukazuju na znatno sporije čitanje slabovidnih učenika, čak i prilikom prilagođavanja teksta i upotrebe odgovarajućeg pomagala, u odnosu na vršnjake bez oštećenja vida. Rezultati ovog istraživanja pokazali su da iako im je potrebno više vremena za čitanje teksta, slabovidni učenici reprodukuju približno isti broj činjenica iz pročitano nepoznatog teksta. Međutim, prilikom čitanja obrađenog, poznatog teksta iz čitanke uočene su razlike.

**Zaključak:** Uspešnost u čitanju jedan je od najvažnijih činilaca za usvajanje znanja i njegovu primenu, a samim tim i uspešnost u obrazovnom procesu. Dobijeni rezultati govore u prilog tome da slabovidni učenici, čak i pored primene uvećane štampe i optičkih pomagala, čitaju sporije od vršnjaka tipičnog razvoja. Sa uzrastom njihova brzina čitanja se povećava, ali nedovoljno da bi dostigli videće vršnjake. Zbog ovakve situacije ovim učenicima je neophodno obezbediti više vremena za čitanje, uz adekvatna pomagala.

**Ključne reči:** *brzina čitanja, razumevanje pročitano, adaptacija*

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## THE SPECIFICITIES IN READING OF CHILDREN WITH VISUAL IMPAIRMENT

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**Introduction:** The problem of the research is focused on assessing the differences between the reading speed and understanding the read text of children with and without visual impairment, and assessing the subjective difficulties in reading which the visually impaired children in primary school face. The idea is to have better adjustments in their learning process which fulfill their learning needs.

**Aim:** 1) to establish differences in reading speed of children with and without visual impairment, 2) to establish the level of understanding of the read text (familiar and unfamiliar text), and 3) to establish the subjective difficulties of students which occur during the reading process.

**Method:** For assessing the reading speed and the understanding of the read text, we used the One-minute Test of Reading Aloud (Furlan, 1972), the Three-dimensional Test of Reading by Helen Sacks, and the texts from the reader book specifically chosen for this research which correspond to the age of the examined children. All the texts were unfamiliar to the examined children.

**Results:** The research results point out that visually impaired children read much slower than their peers who have no visual impairment, even with the text adjustments and the use of the adequate visual aids. Furthermore, the results of this research have shown that, although they need more time to read the text, visually impaired children state approximately the same number of facts from the unfamiliar text. However, while reading the familiar text from the reader, differences were perceived.

**Conclusion:** The effectiveness in reading is one of the most important factors for receiving knowledge and its practical use. It is also the factor of success in the educational process. The research results prove that visually impaired children, even with the enlarged texts and optical devices, read slower than their peers of typical development. The reading speed grows with their age, but it is not sufficient for them to be equal with their peers without visual impairments. This is the reason why these pupils need to be given more time to read, with adequate visual aids.

**Keywords:** *reading speed, the understanding of the read text, adaptation*

## RAZVOJ KOMUNIKACIJSKE KOMPETENCIJE GLUHIH I NAGLUHIH UČENIKA U SLOVENIJI\*

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**Uvod:** Na temelju teorijskih polazišta i empirijskih spoznaja, gluhoća predstavlja veliki izazov za istraživanje budući da se mnogi gluhi i nagluhi učenici susreću s brojnim preprekama na polju komunikacije, koja je ključna za usvajanje jezika. Dakle, jezik je povezan s intimnošću, mišljenjem i identitetom. Stoga je ključan naš odnos prema fenomenu gluhoće jer ona utječe na procesiranje jezičnih informacija, govor i komunikaciju, razumljivost komunikacija, uspjeh u društvu te posljedično identitet i kulturu.

**Cilj:** Glavni cilj ovog članka je predstaviti poučavanje slovenskog jezika i drugih stranih jezika gluhim i nagluhim učenicima u inkluzivnom razredu te dati neke primjere dobre prakse za komunikacijske vještine.

**Metode:** Anketnim upitnikom prikupljeni su podaci koji se odnose na opći status nastavnika i učenika s oštećenjem sluha te metode učenja poučavanja stranog jezika. Primijenjen je kritički pregled stručne literature.

**Rezultati:** Rezultati istraživanja daju uvid u područje poučavanja gluhih i nagluhih učenika u inkluzivnom razredu.

**Zaključak:** Svrha rada je pružiti osnovnu orijentaciju učitelju koji se suočava s izazovom poučavanja stranog jezika gluhih i nagluhih učenika u redovnoj učionici te pomoći u postizanju cilja – razvoja komunikacijske kompetencije učenika – uzeti u obzir sve preporuke za poučavanje učenika s posebnim potrebama i veliku količinu individualne podrške koja je takvim učenicima potrebna.

**Ključne reči:** *gluhi i nagluhi učenici, inkluzivno obrazovanje, komunikacijska kompetencija, strani jezik*

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## DEVELOPMENT OF COMMUNICATIVE COMPETENCE AMONG DEAF AND HARD OF HEARING PUPILS IN SLOVENIA\*

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**Introduction:** Based on theoretical starting points and empirical findings, deafness represents a great challenge for research, as many deaf and hard of hearing students face many obstacles in the field of communication, which is crucial for language acquisition. Thus, language is associated with intimacy, thinking, and identity. Our attitude towards the phenomenon of deafness is therefore crucial as it affects the processing of linguistic information, speech and communication, intelligibility, communication, success in society, and consequently, identity and culture.

**Aim:** The main goal of this paper is to present the teaching of the Slovenian language and other foreign languages to deaf and hard of hearing students in an inclusive classroom and to give some examples of good practices for communicative skills.

**Method:** A questionnaire was used to collect general information about the teachers and students with hearing impairment, as well as the methods of teaching and learning a foreign language. A critical review of relevant literature was applied.

**Results:** Research results provide insight into teaching deaf and hard of hearing students in an inclusive classroom.

**Conclusion:** The purpose of the paper is to provide a basic orientation to a teacher who faces the challenge of teaching a foreign language to deaf and hard of hearing students in a mainstream classroom and to help achieve the goal – the development of students' communicative competence – taking into account all the recommendations for teaching students with special needs and the large amount of individual support that such students require.

**Keywords:** *deaf and hard of hearing students, inclusive education, communicative competence, foreign language*

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\* This paper is part of a national research study related to the education of deaf and hard of hearing people



## SUPPORT FOR STUDENTS WITH DYSLEXIA IN SECONDARY SCHOOL

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**Introduction:** The understanding of the term «dyslexia» varies from country to country. In a number of European countries, dyslexia is associated with an inability to operate any sign systems. Reading impediments are considered with both psychological-pedagogical and clinical-pedagogical approaches in Russia. Reading disorders include alexia and dyslexia. Alexia is an inability to acquire reading. Dyslexia is a partial specific impediment to the reading process, which is manifested in multiple mistakes and/or text content misunderstanding. The Russian system of special education has developed an effective methodology for the prevention of dyslexia in preschool children and corrective support for primary school children. However, some schoolchildren require prolongation of corrective support throughout their school education (grades 1 to 11). This is ensured by the Russian legislature.

**Method:** In order to expand the methodological base of correctional support for students of secondary schools with dyslexia, the author developed the training program «#READING AND WRITING» in 2019. The program takes into account the structural and functional features of reading activity, the pathogenesis of dyslexia, and the characteristics of Alfa Generation children. The program includes six blocks. Some tasks are presented in an online format. All tasks have a multimodal functionality. To study the effectiveness of the program in 2020-2022, two groups of fifth-grade students with dyslexia were identified: the control group (n=43) and the experimental group (n=48) from three schools in Moscow.

**Results and conclusion:** We compared the results between the groups before and after completing the program. There was a 23% increase in motivation to read, significantly fewer mistakes in reading aloud, and an improvement in reading comprehension ( $P < 0.001$ ). The program is recommended for the improvement of reading activities in students with dyslexia.

**Keywords:** *special pedagogy, methodology, reading impediments, text comprehension*

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## MAGIJA ČITANJA: KREATIVNOST LJUDI SA INTELEKTUALNIM TEŠKOĆAMA

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**Uvod:** U postmodernom društvu kognitivna inteligencija je veoma cenjena, ali sama kreativnost gubi na vrednosti. Ljudi sa intelektualnim teškoćama mogu biti izuzetno kreativni, uz odgovarajuću motivaciju. Kao profesionalci zaposleni u centru VDC Ribnica, odlučili smo da podstaknemo kreativnost naših korisnika.

**Cilj:** Cilj ovog rada je prikaz za nas izuzetnog primera povezivanja korisnika sa intelektualnim teškoćama uz pomoć kreativnosti.

**Metode:** Korisnik Tomaž, inspirisan izuzetnim crtežima naše korisnice Mojce, napisao je 13 lako čitljivih priča. Oduvek je voleo da piše i takođe je doprineo člancima u našem biltenu. Želeo je da poruka crteža oživi u drugom mediju. Zato je odlučio da piše priče na osnovu crteža. Time je pokazao visoku emocionalnu inteligenciju i sposobnost empatije, o čemu se nedovoljno govori u radu sa osobama sa intelektualnim teškoćama.

**Rezultati:** Na osnovu navedenog, odlučili smo da objavimo knjigu koju smo osmislili po pravilima za lako čitanje.

**Zaključak:** Na ovaj način pomažemo da se smanje predrasude o osobama sa intelektualnim teškoćama u okruženju, a istovremeno podstičemo kreativnost.

**Ključne reči:** *kreativnost, intelektualne teškoće, lako čitanje*

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## THE MAGIC OF READING: CREATIVITY OF PEOPLE WITH INTELLECTUAL DISABILITY

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**Introduction:** In post-modern society, cognitive intelligence is highly valued, but creativity itself is losing its value. However, people with reduced intellectual abilities can be extremely creative with the right motivation. At VDC Ribnica, we decided to stimulate the creativity of our users.

**Aim:** This paper presents an example of connecting users with intellectual disabilities through creativity.

**Method:** User Tomaž wrote 13 easy-to-read stories inspired by the amazing drawings of our user Mojca. User Tomaž has always loved to write and has written for our newsletter. User Tomaž wanted to see the stories come to life in another medium and decided to write stories. He demonstrated incredible emotional intelligence, which is not often talked about when working with people with intellectual disabilities. However, it is only with the right motivation that it becomes apparent how powerful it is and how it stimulates creativity.

**Results:** We decided to publish a book that was designed according to the easy-to-read rules.

**Conclusion:** This helps to reduce prejudice about people with intellectual disabilities in the community, while at the same time fostering the creativity of both.

**Keywords:** *creativity, intellectual abilities, easy reading*

KVALITET ŽIVOTA: PORODIČNI I  
PROFESIONALNI KONTEKST

QUALITY OF LIFE: FAMILY AND  
PROFESSIONAL CONTEXT

## SIBLING RELATIONSHIP OF CHILDREN WITH VISUAL IMPAIRMENTS

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**Introduction:** The sibling relationship is a unique and long-lasting relationship in an individual's life. If one of the siblings has a visual impairment, it may affect the dynamics of the sibling relationship. Relatively much less research has examined sibling relationships of children with visual impairment, although considerable studies exist concerning sibling relationships of children with disabilities. Existing limited research regarding sibling relationships of individuals with visual impairments showed varied results.

**Aim:** In this study, we aimed to describe the relationship between children with visual impairments and their sighted siblings.

**Method:** We utilized a case study by conducting in-depth semi-structured interviews with six different families in order to explore the perspectives of different members of the family, including siblings with visual impairment, sighted siblings, and their parents. We conducted interviews with totally 24 individuals. We analyzed the data with inductive content analysis and reached four main themes; diverse aspects of the relationship, transformative experience, differed roles, and mutual support, along with subthemes.

**Results:** The results reveal that although the dynamic of the relationship between children with visual impairment and their siblings is similar to typically developing sibling relationships, visual impairment disturbed the natural flow of the relationship between siblings. The sibling relationship was mostly guided by feelings, and sighted siblings were a powerful source of support.

**Conclusion:** The sibling dyads have limited social life, and their shared activities and times were home-based. The results are discussed within the nature of sibling relationships, including typically developing siblings and siblings with disabilities and cultural context.

**Keywords:** *sibling relationship, sibling with visual impairment, sighted sibling, case study*

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## PARENTS' MEANING MAKING OF THEIR EXPERIENCES ABOUT HAVING A YOUNG CHILD WITH DEAFBLINDNESS

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**Introduction:** Deafblindness is total or partial comorbid loss of vision and hearing which seriously affects all aspects of development. While the parents of children with deafblindness experience the same processes as other parents of children with disabilities, the specificity of their child's disability may increase the problems they will be faced with.

**Aim:** This research was conducted in order to describe in depth how parents make sense of their experiences about being a parent of a young child with deafblindness.

**Method:** The qualitative research method, the phenomenological approach, was chosen when describing the parents' experiences. Multiple semi-structured interviews were conducted with three parents, both the mothers and the fathers. Moustakas' transcendental phenomenology approach procedure was followed for the analysis.

**Results:** Nine main themes and 23 sub-themes emerged after the analysis. The main themes are Things that Experiences Taught, Dynamics of Relationship Between Spouses, Challenges, Received Services, Motivation Sources, Coping Strategies, Reactions of Social Environment, Pandemic and Specificity of Deafblindness.

**Conclusion:** According to the results of this study, the experiences of parents who have a young child who is deafblind are similar to the experiences of parents who have a child with other disabilities. Both the parents in this study and other parents who have a child with a disability make a social comparison. As a result of this social comparison, parents are affected both positively and negatively. The negative effects were chronic sorrow, emerged problems in spouses' romantic relationships, depressive mood, and perceived stigma, while the change of perspective on the meaning of life is a positive one. Parents revealed that their love for their children was priceless, and being a parent of such a child taught them how to be more patient. Parents also underlined that understanding the life of a deafblind child and their family was only possible by experiencing this situation directly.

**Keywords:** *deafblindness, early childhood, parents' experiences, phenomenology*

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## SAMOPOŠTOVANJE I OPTIMIZAM RODITELJA DECE SA OŠTEĆENJEM VIDA I POVEZANOST SA KVALITETOM ŽIVOTA\*

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**Uvod:** Oštećenje vida ima značajan uticaj na kvalitet života deteta, ali i na funkcionisanje porodice. Proučavanje korelata kvaliteta života porodica dece sa smetnjama u razvoju postalo je aktuelno zahvaljujući ekološkom pristupu roditeljstva i programima u specijalnoj edukaciji i rehabilitaciji usmerenim na roditelje. Kvalitet života porodice zavisi od velikog broja činilaca, međutim rezultati brojnih istraživanja konzistentno ukazuju da su negativne dimenzije ovog konstrukta povezane sa smetnjom u razvoju kod deteta, kao i sa nekim psihičkim karakteristikama roditelja. Ključne podatke o kvalitetu života osobe ili porodice moguće je dobiti na osnovu samoprocene ličnog doživljaja i vrednovanja njegovih strukturnih elemenata, kao što su zdravlje, dobrobit, emocionalno blagostanje i lične vrednosti i osećaj samopoštovanja.

**Cilj:** Cilj istraživanja je utvrditi povezanost samopoštovanja i optimizma roditelja dece sa oštećenjem vida i kvaliteta života porodice.

**Metode:** Za prikupljanje podataka korišćen je Pedijatrijski upitnik za procenu kvaliteta života dece sa oštećenjem vida i njihovih porodica (Pediatric Eye Questionnaire - PedsEyeQ, Hatt et al., 2019). Za procenu samopoštovanja kod roditelja korišćena je Rozenbergova skala samopoštovanja (Rosenberg Self Esteem Scale, Rosenberg, 1965, prema Alinčić-Zorić, 2014), a za procenu optimizma Skala za merenje optimizma (Life Orientation Test, Scheier, Carver & Bridges, 1994, prema Alinčić-Zorić, 2014). Uzorak je činilo 38 ispitanika, roditelja dece sa oštećenjem vida.

**Rezultati:** Analizom rezultata utvrđena je pozitivna korelacija umerenog intenziteta između samopoštovanja roditelja dece sa oštećenjem vida i samoprocene kvaliteta života. Između samoprocene kvaliteta života i nivoa optimizma roditelja nije utvrđena povezanost.

**Zaključak:** Za organizaciju aktivnosti u zajednici i donošenje odluka veoma je bitno kako roditelj deteta sa oštećenjem vida vrednuje sebe i vidi budućnost svoje porodice. Zato je neophodno da se, kroz programe intervencije usmerene na roditelje, stalno radi na oblikovanju njihovih realnih očekivanja (optimizma) i zdravog samopoštovanja.

**Ključne reči:** roditelji dece sa oštećenjem vida, kvalitet života, samopoštovanje, optimizam

\* Rad je proistekao iz projekta „Kreiranje protokola za procenu edukativnih potencijala dece sa smetnjama u razvoju kao kriterijuma za izradu individualnih obrazovnih programa dece sa smetnjama u razvoju” i „Socijalna participacija osoba sa intelektualnom ometenošću”, čiju je realizaciju podržalo Ministarstvo nauke, tehnološkog razvoja i inovacija Republike Srbije (451-03-47/2023-01)

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## SELF-ESTEEM AND OPTIMISM IN PARENTS OF CHILDREN WITH VISUAL IMPAIRMENT AND THEIR RELATION TO THE QUALITY OF LIFE\*

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**Introduction:** Visual impairment significantly affects children’s quality of life and how families function. Research into the correlates of the quality of life of families with children with developmental disabilities has become possible due to the ecological approach to parenting and programs in special education and rehabilitation aimed at parents. A family’s quality of life depends on many factors. However, the results of numerous studies consistently indicate that the negative dimensions of this construct are associated with a child’s developmental disability and some psychological characteristics of parents. Essential information on the quality of life of a person or family can be obtained from self-assessment of personal experience and evaluation of its structural elements, such as health, well-being, emotional wellness, personal values, and self-esteem.

**Aim:** This research aimed to determine the relationship between self-esteem and optimism in parents of children with visual impairment and the family’s quality of life.

**Method:** The Pediatric Eye Questionnaire – PedsEyeQ (Hatt et al., 2019) was used to collect information on the quality of life of children with visual impairment and their families.

The Rosenberg Self Esteem Scale (Rosenberg, 1965, according to Alinčić-Zorić, 2014) was used to assess self-esteem in parents, while Life Orientation Test (Scheier, Carver & Bridges, 1994, according to Alinčić-Zorić, 2014) was used for optimism. The sample included 38 parents of children with visual impairment.

**Results:** The results showed a moderate positive correlation between self-esteem in parents of children with visual impairment and the self-assessed quality of life. No correlation was found between the parents’ self-assessed quality of life and the level of optimism.

**Conclusion:** For organizing activities in the community and making decisions, it is very important how parents of children with visual impairment value themselves and see the future of their families. Thus, it is necessary to constantly work on shaping their realistic expectations (optimism) and healthy self-esteem through parent-oriented intervention programs.

**Keywords:** *parents of children with visual impairment, quality of life, self-esteem, optimism*

\* This paper is part of the projects “Creating Protocols for Assessing Educational Potentials of Children with Developmental Disabilities as the Criteria for Developing Individualized Education Plans for Children with Developmental Disabilities” and “Social Participation of People with Intellectual Disability” supported by the Ministry of Science, Technological Development and Innovation of the Republic of Serbia (451-03-47/2023-01)



## PARENTS' AND PROFESSIONALS' SELF-PERCEPTIONS OF THE NEED FOR BURNOUT PREVENTION IN EARLY CHILDHOOD INTERVENTION\*

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**Introduction:** Parents of children with developmental delays in early childhood face many challenges. Early childhood professionals who provide support to parents with these challenges often carry a heavy burden of different emotions. As a result, they are all subject to heightened stress levels and are at risk of burnout. Most parents and professionals in early childhood intervention are aware of their needs to reduce stress and prevent burnout.

**Aim:** The objective of this study was to analyze what interventions parents and professionals in early childhood intervention consider helpful in preventing burnout.

**Method:** To find out what they consider helpful in preventing burnout, we conducted a survey with 47 statements for parents and 35 statements for professionals in a questionnaire distributed online.

**Results:** We received questionnaires from 44 parents and 59 professionals. All rated most of the statements very highly, indicating that they see a tremendous need for support in burnout prevention. Some of the statements that parents felt were needed, such as “a team approach to assessment and a team report on the child” and “getting all services for a child in one place,” should be used as guidelines for early childhood intervention service providers. Similarly, some statements that were highly rated by professionals, such as “support in finding the best coping strategies for general stress” and “support in managing work-related stress,” should be considered by early childhood intervention provider leadership.

**Conclusion:** Both parents and professionals recognize that early childhood intervention programs need to be improved to prevent burnout.

**Keywords:** *early childhood intervention, burnout, parental stress*

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## SINDROM SAGOREVANJA NA POSLU KOD ZAPOSLENIH U POVERENIČKOJ SLUŽBI U SRBIJI

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**Uvod:** Najčešće se istraživanja o sagorevanju na poslu sprovode među medicinskim osobljem, zaposlenima u socijalnim službama, a često i među zaposlenima u zatvorskom i probacionom sistemu. U Srbiji nema puno istraživanja na ovu temu među zaposlenima u Povereničkoj službi, a upravo takva istraživanja mogu biti značajna za njen razvoj.

**Cilj:** Cilj je bio da se utvrdi prevalenca sindroma sagorevanja među zaposlenima u Povereničkoj službi u Srbiji, zatim da li postoji povezanost između nastanka sindroma i sociodemografskih karakteristika zaposlenih, dužine radnog staža i uslova rada.

**Metode:** Istraživanje je sprovedeno u maju 2022. godine i obuhvatilo je svih 25 povereničkih kancelarija u Srbiji, odnosno 37 zaposlenih. Razvijen je poseban upitnik koji ima dva dela. Prvi se odnosio na sociodemografske karakteristike, dužinu radnog staža i uslove rada, dok je za procenu postojanja sindroma sagorevanja korišćen Kopenhagen upitnik o sagorevanju na poslu.

**Rezultati:** Rezultati pokazuju da kod skoro polovine ispitanika ne postoji sindrom sagorevanja, dok je kod trećine tek umereno prisutan. Nivo sagorevanja u odnosu na rad sa klijentima nešto je niži nego kada se posmatraju faktori sagorevanja u vezi sa poslom i lični faktori sagorevanja. Kada se radi o sociodemografskim podacima, ne postoji povezanost u odnosu pol ( $\chi^2 = 0.70$ ,  $df = 3$ ,  $r\phi = .14$ ,  $p = .87$ ) i bračni status ( $\chi^2 = 10.50$ ,  $df = 6$ ,  $r\phi = .53$ ,  $p = .10$ ). Ona postoji kada se radi o dužini radnog staža ( $r = .40$ ,  $p = .01$ ), a na pojavu sagorevanja utiče i to kako poverenici percipiraju uslove rada ( $\chi^2 = 28.12$ ,  $df = 6$ ,  $r\phi = .87$ ,  $p < .01$ ).

**Zaključak:** Rezultati pokazuju da sagorevanja na poslu među zaposlenima u Povereničkoj službi nema u visokoj meri, što može biti posledica činjenice da se radi o „mladoj“ službi i velikom broju zaposlenih koji imaju kratak radni staž u službi.

**Ključne reči:** *sagorevanje na poslu, Poverenička služba, alternativne sankcije*

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## BURNOUT AMONG PROBATION OFFICERS IN SERBIA

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**Introduction:** Studies on burnout are most frequently conducted among medical staff, social service workers, and also prison staff, and probation officers. Among probation officers in Serbia, there is not much research on this topic, and precisely such research can be important for its development.

**Aim:** The aim was to determine the prevalence of burnout syndrome among the employees of Probation officers in Serbia and whether there is a relationship between the occurrence of the syndrome and the sociodemographic characteristics of the employees, the length of service, and the working conditions.

**Method:** The survey was conducted in May 2022 and included all 25 Probation offices in Serbia, i.e., 37 employees. A special questionnaire was developed consisting of two parts. The first part was related to sociodemographic characteristics, length of service, and working conditions, while the Copenhagen questionnaire on burnout at work was used to assess the presence of burnout syndrome.

**Results:** The results show that burnout syndrome does not exist in almost half of the respondents, while it is only moderately present in one-third. The extent of burnout related to working with clients is slightly lower than when looking at work-related burnout factors and personal burnout factors. For sociodemographic data, there is no correlation between gender ( $\chi^2 = 0.70$ ,  $df = 3$ ,  $r\phi = .14$ ,  $p = .87$ ) and marital status ( $\chi^2 = 10.50$ ,  $df = 6$ ,  $r\phi = .53$ ,  $p = .10$ ). Correlation exists when it comes to the length of service ( $r = .40$ ,  $p = .01$ ), and the occurrence of burnout is also influenced by how the Probation officer perceive working conditions ( $\chi^2 = 28.12$ ,  $df = 6$ ,  $r\phi = .87$ ,  $p < .01$ ).

**Conclusion:** The results show that there is not a high level of burnout among the employees of the Probation Service, which could be a consequence of the fact that it is a “young” service, and so, there is a large number of employees who have a short working experience in the service.

**Keywords:** *burnout, probation service, alternative sanctions*

ČINIOCI ŠKOLSKOG POSTIGNUĆA  
UČENIKA

STUDENTS' SCHOOL ACHIEVEMENT  
FACTORS

## RAZVOJNE SPOSOBNOSTI KAO PREDIKTORI USPJEŠNOG SUDJELOVANJA U ŠKOLSKIM AKTIVNOSTIMA

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**Uvod:** Uspješno sudjelovanje u školskim aktivnostima rezultat je niza čimbenika koji skladno funkcioniraju. Među njima posebno valja istaknuti razvojne sposobnosti koje su temelj za usvajanje znanja i vještina koje škola nudi.

**Cilj:** Ovaj rad ima za cilj utvrditi neke aspekte razvojnih sposobnosti koji su preduvjet uspješnog savladavanja gradiva u osnovnoj školi.

**Metode:** Za ispitivanje je korišten Acadia test razvoja sposobnosti koji pomaže identificirati postojanje rizika za razvoj teškoća u učenju te utvrditi postoji li kod nekog učenika potreba za dodatnom podrškom u nastavnom procesu. Za obradu podataka korišten je statistički paket IBM SPSS 29©. Provedeno je istraživanje u dvjema osnovnim školama na gradskom i prigradskom području Mostara (Bosna i Hercegovina) na uzorku od 54 učenika. Na temelju Acadia testa ispitivane su razlike između učenika po spolu i mjestu školovanja, a hipoteza je u oba slučaja djelomično prihvaćena.

**Rezultati i zaključak:** Rezultati istraživanja ukazuju na potrebu za intenzivnijim praćenjem cjelokupnog razvoja učenika, za uključivanjem stručnih suradnika u proces praćenja, procjene i intervencija te daju značajan doprinos praktičnom radu u odgoju i obrazovanju jer pomažu doznati u kakvom se položaju učenici nalaze glede razvojnih sposobnosti.

**Ključne riječi:** *razvojne sposobnosti, Acadia test razvoja sposobnosti, školske aktivnosti, obrazovanje*

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## DEVELOPMENTAL ABILITIES AS PREDICTORS OF SUCCESSFUL PARTICIPATION IN SCHOOL ACTIVITIES

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**Introduction:** Successful participation in school activities is the result of several factors that function harmoniously. Among them, it is worth noting the developmental abilities that are the basis for the acquisition of knowledge and skills that the school offers.

**Aim:** The aim of this paper was to determine some aspects of developmental abilities that are a prerequisite for successful mastering of the curriculum in primary school.

**Method:** Acadia Test of developmental abilities was used, which helps to identify the risk for the development of learning difficulties and determine whether there is a need for additional support in the teaching process. The statistical package IBM SPSS 29© was used for data processing. A survey was conducted in two primary schools in the city and suburban area of Mostar (Bosnia and Herzegovina) on a sample of 54 students. Based on the Acadia test, differences between students by gender and place of schooling were examined, and the hypothesis was partially accepted in both cases.

**Results and conclusion:** The results of the research indicate the need for more intensive monitoring of the overall development of students, for the involvement of professional associates in the process of monitoring, assessment, and intervention, and make a significant contribution to practical work in education because they help to find out the position of students in terms of developmental abilities.

**Keywords:** *developmental abilities, Acadia test of developmental abilities, school activities*

## KVALITET INTERAKCIJE S NASTAVNIKOM KAO PREDIKTOR USVAJANJA SOCIJALNIH VEŠTINA UČENIKA SA LAKOM INTELEKTUALNOM OMETENOŠĆU\*

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**Uvod:** Kod učenika sa intelektualnom ometenošću prisutan je deficit u oblasti socijalnih veština, koji ograničava mogućnosti njihove uspešne adaptacije na školsko okruženje. Određene sociodemografske odlike nastavnika i učenika, kao i kvalitet njihovih interakcija, predstavljaju činioce socijalizacije učenika kojima u domaćoj literaturi još uvek nije posvećeno dovoljno značaja.

**Cilj:** Utvrđivanje prediktivnog značaja interakcije sa nastavnikom i demografskih karakteristika nastavnika (hronološko doba i radno iskustvo) i učenika (hronološki uzrast) za kvalitet socijalnih veština učenika sa intelektualnom ometenošću.

**Metode:** Uzorkom su obuhvaćena 32 nastavnika – oligofrenologa u ulozi informanata, starosti 28–62 godine ( $AS=38,72$ ,  $SD=9,33$ ) i 32 učenika sa lakom intelektualnom ometenošću uzrasta 10–18 godina ( $AS=14,56$ ,  $SD=2,40$ ). Za procenu kvaliteta odnosa nastavnik-učenik korišćena je Skala odnosa učenik-nastavnik – kratka forma (Student-Teacher Relationship Scale – Short Form), koja sadrži subskale Bliskost i Konflikt. Podaci o socijalnim veštinama učenika prikupljeni su upotrebom subskala Socijalne veštine i Slobodno vreme, Sistema za procenu adaptivnog ponašanja II (Adaptive Behavior Assessment System II). Sociodemografski podaci dobijeni su primenom upitnika osmišljenog za potrebe ovog istraživanja.

**Rezultati:** Višestrukom postepenom linearnom regresionom analizom utvrđeno je da rezultati na subskali Bliskost predstavljaju jedini prediktor uspeha na subskalama Socijalne veštine ( $R^2=0,52$ , prilagođeno  $R^2=0,50$ ) i Slobodno vreme ( $R^2=0,49$ , prilagođeno  $R^2=0,48$ ).

**Zaključak:** Potrebno je osmisлити aktivnosti i kreirati okruženje koje će stimulatívno delovati na povećanje nivoa bliskosti nastavnika i učenika, kako bi učenici sa lakom intelektualnom ometenošću uspešnije usvajali socijalne veštine i prilagođavali se školskom okruženju.

**Ključne reči:** *učenici, intelektualna ometenost, socijalne veštine, pedagoška interakcija nastavnik-učenik*

\* Rad je rezultat istraživanja čiju je realizaciju podržalo Ministarstva nauke, tehnološkog razvoja i inovacija Republike Srbije (ev. broj 451-03-47/2023-01/200096).

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## THE QUALITY OF INTERACTION WITH THE TEACHER AS A PREDICTOR OF THE ACQUISITION OF SOCIAL SKILLS OF STUDENTS WITH MILD INTELLECTUAL DISABILITY\*

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**Introduction:** Students with intellectual disabilities have a deficit in the area of social skills, which limits the possibilities of their successful adaptation to the school environment. Certain sociodemographic characteristics of teachers and students, as well as the quality of their interactions, represent factors of student socialization that are still not given enough importance in domestic literature.

**Aim:** Determining the predictive significance of interaction with the teacher and demographic characteristics of teachers (chronological age and work experience) and students (chronological age) for the quality of social skills of students with mild intellectual disabilities.

**Method:** The sample included 32 teachers (oligophrenologist) aged 28-62 ( $M=38.72$ ,  $SD=9.33$ ) as informants and 32 students with mild intellectual disability aged 10-18 ( $M=14.56$ ,  $SD=2.40$ ). To assess the quality of the teacher-student relationship, the Student-Teacher Relationship Scale - Short Form, which contains the subscales Closeness and Conflict, was used. Data on students' social skills were collected using the subscales Social Skills and Leisure Time, Adaptive Behavior Assessment System II. Sociodemographic data were obtained using a questionnaire designed for the purpose of this research.

**Results:** Multiple stepwise linear regression analysis revealed that the results on the Closeness subscale were the only predictor of success on the Social skills ( $R^2=0,52$ , adjusted  $R^2=0,50$ ) and Leisure time ( $R^2=0,49$ , adjusted  $R^2=0.48$ ).

**Conclusion:** It is necessary to design activities and create an environment that will have a stimulating effect on increasing the level of closeness between teachers and students so that students with mild intellectual disability can more successfully acquire social skills and adapt to the school environment.

**Keywords:** *students, intellectual disability, social skills, teacher-student pedagogical interaction*

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## LEKSIČKO RAZUMEVANJE I OBRADA KOD DECE TIPIČNOG RAZVOJA

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**Uvod:** Istraživači obično razlikuju dva aspekta dečjeg znanja o rečima: širinu i dubinu. Odnosi među rečima i njihov uticaj na stvaranje neuronskih mreža mentalnog leksikona omogućavaju detetu da dostigne određeni nivo apstrakcije.

**Cilj:** Istraživanje je sprovedeno kako bi se utvrdio nivo razvijenosti leksičko-semantičkih sposobnosti kod dece tipičnog razvoja.

**Metode:** Uzorkom je obuhvaćeno 61 dete tipičnog razvoja, uzrasta od pet do osam godina. Sposobnost leksičkog razumevanja i obrade procenjena je Testom verbalnog razumevanja, koji se sastoji iz četiri subtesta: slikovni rečnik, sinonimi, antonimi i verbalne analogije.

**Rezultati:** Zadaci za procenu sinonima predstavljali su za decu najteži tip zadataka (30,92% uspešnosti) u odnosu na zadatke antonima (49,27% uspešnosti), verbalnih analogija (57,81% uspešnosti) i slikovnog rečnika (66,85% uspešnosti). Primenom analize varijanse utvrđeno je da je uzrast značajan činilac postignuća na zadacima slikovnog rečnika ( $F=6,645$ ;  $p=0,003$ ), antonima ( $F=7,060$ ;  $p=0,002$ ) i verbalnih analogija ( $F=5,636$ ;  $p=0,006$ ), dok u domenu sinonima ( $F=3,059$ ;  $p=0,055$ ) odnos nije značajan, iako su prisutne razlike aritmetičkih sredina u korist dece starijeg uzrasta. Uzrastom se može objasniti oko 18% varijabilnosti rezultata na zadacima procene slikovnog rečnika, kao i oko 19% varijabilnosti postignuća u domenu antonima i verbalnih analogija. Primenom dvofaktorske analize varijanse nije utvrđena statistički značajna interakcija pola i uzrasta dece na zadacima za procenu slikovnog rečnika ( $F=1,120$ ;  $p=0,334$ ), sinonima ( $F=0,775$ ;  $p=0,466$ ), antonima ( $F=0,820$ ;  $p=0,446$ ) i verbalnih analogija ( $F=0,375$ ;  $p=0,689$ ).

**Zaključak:** S obzirom na to da zadaci za procenu leksičkih sposobnosti koje smo primenili u istraživanju predstavljaju značajne indikatore jezičkog razvoja, kao i da postoji značajna povezanost između leksičko-semantičkih sposobnosti i akademskog uspeha, od velikog je značaja nastaviti sa istraživanjima u ovoj oblasti, kako kod dece tipičnog jezičkog razvoja, tako i kod dece sa jezičkim poremećajima.

**Ključne reči:** *leksičko razumevanje, obrada reči, jezičke sposobnosti, tipičan razvoj*

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## LEXICAL COMPREHENSION AND PROCESSING IN CHILDREN WITH TYPICAL DEVELOPMENT

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**Introduction:** Researchers usually distinguish two aspects of a child’s word knowledge: breadth and depth. Relationships between words and their influence on the creation of neural networks of the mental lexicon allow children to reach a certain level of abstraction.

**Aim:** The research was conducted with the aim to determine the developmental trend of lexical-semantic abilities in typically developing children.

**Method:** The sample consisted of 61 children with typical development, aged five to eight years. Lexical comprehension and processing abilities were assessed by the Test of Verbal Comprehension, which includes four subtests: picture vocabulary, synonyms, antonyms, and verbal analogies.

**Results:** The assessment of synonyms was the most difficult type of task for children (30.92% success rate) compared to the tasks of antonyms (49.27% success rate), verbal analogies (57.81% success rate), and picture vocabulary (66.85% success rate). The analysis of variance revealed that age was a significant achievement factor in the picture vocabulary tasks ( $F=6.645$ ;  $p=0.003$ ), antonyms ( $F=7.060$ ;  $p=0.002$ ), and verbal analogies ( $F=5.636$ ;  $p=0.006$ ), while on synonyms tasks ( $F=3.059$ ;  $p=0.055$ ) there were no significant age differences, although some differences between arithmetic means could be seen in favor of older children. Age can explain around 18% of results variability on the picture vocabulary tasks and around 19% of variability in the antonyms and verbal analogies tasks. The two-way analysis of variance showed that there were no statistically significant interactions between age and gender on the picture vocabulary tasks ( $F=1.120$ ;  $p=0.334$ ), synonyms ( $F=0.775$ ;  $p=0.466$ ), antonyms ( $F=0.820$ ;  $p=0.446$ ), and verbal analogies ( $F=0.375$ ;  $p=0.689$ ).

**Conclusion:** Given that the tasks for assessing lexical abilities that we applied in our research represent significant indicators of language development, as well as that there is a significant connection between lexical-semantic abilities and academic success, it is of great importance to continue research in this area, both in children with typical language development, as well as in children with language disorders.

**Keywords:** *lexical comprehension, word processing, language abilities, typical development*

## ULOGA I ZNAČAJ PRSTNE AZBUKE KOD GLUVIH I NAGLUVIH\*

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**Uvod:** Razvoj jezika, proces usvajanja govora i artikulacije glasova kod gluvih i naglavih praćen je intenzivnom upotrebom prstne azbuke. U Srbiji postoje i paralelno se koriste jednoručna i dvoručna prstna azbuka, kao i ćirilična i latinična. One su drugačije i različite za svaki jezik. To znači da u svakom jeziku ima onoliko daktilema (daktilnih slova – znakova) koliko ima grafema (slova) u pismu tog jezika. Daktilologija je jednoručna prstna azbuka, dok se dvoručna naziva hirologija. Hirologiju znatno više koriste mala deca u procesu početnog savladavanja čitanja i pisanja dok odrasli gluvi više koriste daktilologiju. Daktilologija se znatno brže pokazuje, jedna ruka ostaje slobodna, što olakšava njenu primenu.

**Cilj:** Cilj rada je da se utvrdi uloga i značaj primene daktilologije i hirologije kod gluvih i naglavih.

**Metode:** Primenjene su metode analize i evaluacije relevantne dostupne literature.

**Rezultati:** Pregledom literature uočava se značajna uloga i aktivna primena i daktilologije i hirologije. Naročito se izdvaja primena prstne azbuke u savladavanju procesa artikulacije, učenju početnog pisanja i čitanja, savladavanju novih reči i bogaćenju rečnika. Prstnom azbukom se iskazuju svi oni pojmovi (naročito opšti i apstraktni, ali i stručna terminologija mnogih nauka) koji ne postoje u znakovnom jeziku, koji je prvi, primarni jezik gluvih osoba. Brojna istraživanja ukazuju na značaj primene prstne azbuke tokom čitanja govora sa usana. Svi glasovi nisu jednako vidljivi na usnama, pa se pokazivanjem daktilnog znaka olakšava ovaj proces.

**Zaključak:** Značaj upotrebe prstne azbuke, naročito na ranom uzrastu gluve i nagluve dece, jeste veliki. Početna komunikacija, otežana usled nerazvijenog govora, olakšava se. Na starijim uzrastima, kao i kod odraslih gluvih i naglavih, primena prstne azbuke takođe zauzima bitno mesto. Uporedo sa korišćenjem znakovnog jezika, prstna azbuka pomaže boljoj i uspešnijoj komunikaciji i smanjuje nesporazume nastale usled specifičnosti svakog pojedinačnog znakovnog jezika.

**Ključne reči:** *prstna azbuka, daktilologija, hirologija, gluvi i nagluvi*

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## THE ROLE AND THE SIGNIFICANCE OF FINGERSPELLING ALPHABET WITH THE DEAF AND THE HARD OF HEARING\*

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**Introduction:** The development of language, speech learning, and sound articulation process with the deaf and the hard of hearing is accompanied by the intensive use of the fingerspelling alphabet. In Serbia, there are one-handed and two-handed fingerspelling alphabets, as well as Cyrillic and Latin ones, which are used in parallel. They are different and various for each language. That means that each language has as many dactyloemes (dactylic letters – signs) as there are graphemes (letters) in the alphabet of that language. Dactylology is the one-hand fingerspelling alphabet, whereas the two-handed fingerspelling alphabet is called chirology. Chirology is used considerably more by small children in the process of initial learning of reading and writing, while deaf adults rather use dactylology. Dactylology is presented much faster, as one hand remains free, which facilitates its use.

**Aim:** The study aims to establish the role and significance of the application of dactylology and chirology with the deaf and the hard of hearing.

**Method:** The methods of analysis and evaluation of the available relevant literature were applied.

**Results:** The review of literature shows the significant role and the active application of both dactylology and chirology. What is distinguished in particular is the application of the fingerspelling alphabet in learning the articulation process, learning initial writing and reading, learning new words, and in the enrichment of vocabulary. The fingerspelling alphabet is used to express all those terms (especially the general and abstract ones, but the professional terminology of many sciences as well) which do not exist in sign language, which is the first and the primary language of deaf persons. Numerous research studies point to the significance of the application of the fingerspelling alphabet in lipreading. Not all sounds are equally visible on the lips, and thus the presentation of a dactylic sign facilitates this process.

**Conclusion:** The significance of the use of the fingerspelling alphabet, especially at an early age of deaf and hard-of-hearing children, is huge. The initial communication, aggravated as the result of undeveloped speech, is made easier. At older ages, as well as with deaf and hard-of-hearing adults, the use of the fingerspelling alphabet is also important.

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The fingerspelling alphabet, in parallel with the use of sign language, contributes to better and more effective communication and reduces misunderstandings occurring as a result of the specific features of each individual sign language.

**Keywords:** *fingerspelling alphabet, dactylogy, chiology, deaf, hard of hearing*

## ZNAČAJ FINIH MOTORIČKIH SPOSOBNOSTI ZA UČENJE MATEMATIKE KOD DECE SA CEREBRALNOM PARALIZOM

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**Uvod:** Cerebralna paraliza kao multiplo oštećenje sa dominantnim telesnim oštećenjem i brojnim pridruženim smetnjama u kontekstu matematike, koja predstavlja naučno-logički sistem koji obuhvata promenljive veličine, apstraktne strukture i prostorne odnose, ističe činjenicu da se matematičke sposobnosti ne razvijaju kod svih istom brzinom niti do istog nivoa, pa deca koja polaze u školu imaju različit obim znanja koje je neophodno za učenje matematike.

**Cilj:** Cilj ovog rada je prikaz značaja finih motoričkih sposobnosti za učenje matematike kod dece sa cerebralnom paralizom.

**Metode:** Analiza literature izvršena je pretragom elektronskih baza Kobson i Google Scholar, a tom prilikom korišćene su sledeće ključne reči i njihove kombinacije: fina motorika, matematičke sposobnosti, cerebralna paraliza.

**Rezultati:** Pokazalo se da deca motoričko iskustvo brojanja stiču uz pomoć prstiju, a potom i da fina motorika utiče na brojanje, numeričke veštine, uspešnost prilikom rešavanja matematičkih zadataka, i, generalno, na razvoj matematičkih sposobnosti. Takođe, ne treba zanemariti ni sam školski kontekst u okviru kog rešavanje matematičkih zadataka neretko zahteva pisanje ili manipulisanje nastavnim materijalom.

**Zaključak:** Korišćenje prstiju na ranom uzrastu tokom brojanja objekata predstavlja prvi vid aritmetičkih zadataka za decu, a deca sa cerebralnom paralizom jesu populacija kod koje sticanje primarnog matematičkog iskustva ometa njihovo motoričko funkcionisanje.

**Ključne reči:** *fina motorika, matematičke sposobnosti, cerebralna paraliza*

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## THE IMPORTANCE OF FINE MOTOR SKILLS FOR LEARNING MATHEMATICS IN CHILDREN WITH CEREBRAL PALSY

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**Introduction:** Cerebral palsy as a multiple disability with a dominant physical impairment and numerous associated disorders in the context of mathematics, which represents a scientific-logical system that includes variable quantities, abstract structures, and spatial relationships, highlights the fact that mathematical abilities do not develop for everyone at the same speed or to the same level, so children who start school have different levels of knowledge that is necessary for learning mathematics.

**Aim:** The aim of this paper is to show the importance of fine motor skills for learning mathematics in children with cerebral palsy.

**Method:** The literature analysis was performed by searching electronic databases Kobson and Google Scholar, and the following key words and their combinations were used: fine motor skills, mathematical abilities, cerebral palsy.

**Results:** It has been shown that children gain the motor experience of counting with the help of their fingers and that fine motor skills affect counting, numerical skills, success in solving mathematical problems, and, in general, the development of mathematical abilities. Also, the school context itself should not be neglected, within which the solving of mathematical problems often requires writing or manipulating the teaching material.

**Conclusion:** The use of fingers when counting objects at an early age represents the first type of arithmetic tasks for children, and children with cerebral palsy are a population whose acquisition of primary mathematical experience interferes with their motor functioning.

**Keywords:** *fine motor skills, mathematical abilities, cerebral palsy*

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## ZNAČAJ ŠKOLSKE ANGAŽOVANOSTI UČENIKA ZA PREVENCIJSKU PRAKSU\*

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**Uvod:** Savremena preventivna praksa umnogome se oslanja na intervencije usmerene ka jačanju protektivnih faktora, među kojima se, kada je u pitanju školski kontekst, sve više ističe značaj angažovanosti učenika u školi. Školska angažovanost, kao multidimenzionalni konstrukt koji uključuje bihevioralnu, emocionalnu i kognitivnu komponentu, neretko se povezuje sa nizom pozitivnih razvojnih ishoda koji mogu biti u funkciji prevencije različitih vidova problema ponašanja učenika.

**Cilj:** Sagledavanje značaja školske angažovanosti za promociju pozitivnog razvoja i prevenciju problema ponašanja učenika.

**Metode:** Sistematski pregled relevantnih istraživačkih studija u kojima je ispitivan uticaj školske angažovanosti na različite aspekte funkcionisanja učenika. Baze podataka za pretragu studija bile su APA PsycArticles, Springer-Link, Wiley, MEDLINE, SAGE i ERIC.

**Rezultati:** Rezultati sprovedene analize dosledno pokazuju da je visok nivo angažovanosti učenika, naročito na bihevioralnom i emocionalnom planu, povezan sa generalno boljim akademskim postignućem, poželjnim socijalnim prilagođavanjem učenika, ispoljavanjem pozitivnih emocija i korišćenjem efektivnih strategija rešavanja problema. S druge strane, nizak nivo angažovanosti učenika izdvaja se kao značajan prediktor različitih oblika problema ponašanja. Naime, istraživanja ukazuju da je nizak nivo školske angažovanosti povezan sa učestalim bežanjem učenika iz škole, neizvršavanjem školskih zadataka, nepoštovanjem školskih pravila i niskim nivoom povezanosti sa školom. Dodatno, nedovoljna angažovanost učenika u školi povezana je sa različitim eksternalizovanim i internalizovanim problemima, kao što su delinkventno ponašanje, zloupotreba psihoaktivnih supstanci i visok nivo depresivnih i anksioznih simptoma. Na kraju, angažovanost učenika snažno je povezana sa završetkom i/ili nastavkom školovanja. Postoje čvrsti empirijski dokazi koji sugerišu da je nizak nivo angažovanosti učenika značajan prediktor ranog napuštanja školovanja.

**Zaključak:** Nalazi istraživačkih studija nedvosmisleno upućuju na zaključak da školska angažovanost predstavlja snažan resurs za preventivnu praksu, te da je celishodno, tokom celokupnog obrazovno-vaspitnog

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procesa, primenjivati intervencije kojima se neposredno podstiče aktivna angažovanost učenika školi, te posledično unapređuju pozitivni razvojni ishodi i preveniraju različiti vidovi problema ponašanja.

**Ključne reči:** *školska angažovanost, angažovanost učenika, preventijska praksa, problemi ponašanja*

## THE IMPORTANCE OF STUDENT ENGAGEMENT FOR PREVENTION PRACTICE\*

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**Introduction:** Modern prevention practice relies heavily on interventions aimed at strengthening protective factors, with increasing emphasis on the importance of student engagement in the school context. School engagement, as a multidimensional construct that includes behavioral, emotional, and cognitive components, is often associated with a range of positive developmental outcomes that can be used to prevent various types of behavioral problems in students.

**Aim:** Understanding the importance of school engagement in promoting positive development and preventing behavior problems in students.

**Method:** A systematic review of relevant research studies in which the impact of school engagement on various aspects of student functioning was examined. Databases for study searches were APA PsycArticles, Springer-Link, Wiley, MEDLINE, SAGE, and ERIC.

**Results:** The results of the analysis consistently show that high levels of student engagement, particularly at the behavioral and emotional levels, are associated with generally better academic performance, desirable student social adjustment, expression of positive emotions, and use of effective problem/solving strategies. On the other hand, low student engagement is a significant predictor of various forms of behavior problems. Namely, research shows that low school engagement is related to frequent truancy, failure to complete school assignments, failure to follow school rules, and low attachment to school. In addition, insufficient student engagement in school is associated with various externalized and internalized problems, such as delinquent behavior, psychoactive substance abuse, and high levels of depressive and anxiety symptoms. Finally, student engagement is strongly associated with graduation and/or the continuing education. There is strong empirical evidence to suggest that low levels of student engagement are a significant predictor of early school leaving.

**Conclusion:** The findings of research studies unequivocally point to the conclusion that school engagement represents a strong resource for preventive practice and that it is expedient, during the entire educational process, to apply interventions that directly encourage the active engagement of students at school and consequently improve positive developmental outcomes and prevent various types of behavioral problems.

**Keywords:** *school engagement, student engagement, prevention practice, behavioral problems*

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MEDICINSKI ASPEKT REHABILITACIJE  
MEDICAL ASPECTS OF REHABILITATION

## CONTINUOUS EDUCATION OF HEALTH CARE PROFESSIONALS IN WELCOMING INTELLECTUALLY DISABLED PATIENTS\*

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**Introduction:** A review of scientific literature shows that standard education for general practitioners and healthcare staff in general is not particularly focused on intellectually disabled persons’ needs regarding communication style and precautions, nor simple and patient explanations. Furthermore, healthcare workers often prefer to interact with patients’ caregivers than directly with the patients themselves.

**Aim:** The present contribution aims to investigate medical doctors’ and other healthcare workers’ needs in continuous education in order to welcome disabled patients, thus fulfilling the disabled persons’ right to be provided with high-standard healthcare services.

**Method:** In this study, we designed a questionnaire based on a national consensus on what healthcare providers across disciplines need to know to provide quality care to patients with disabilities (Havercamp et al., 2021). We then administered the questionnaire to about 100 general practitioners recruited in Italy and in Serbia.

**Results:** The results are discussed in order to highlight how general practitioners’ education can be improved to make general practitioners more competent in welcoming intellectually disabled patients.

**Conclusion:** The differences between Italian and Serbian samples are highlighted and discussed.

**Keywords:** *education in medicine, health care professionals, intellectual disability*

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## NEOPHODNOST PRIMENE KONTROLNOG MERENJA U TERAPIJI OSOBA SA POVREDOM MOZGA\*

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**Uvod:** Kontrolno merenje je uobičajeno u eksperimentalnim situacijama, dok se u praksi često ne realizuje ili se obavi razgovor sa pacijentom. Očigledno je da moramo da postavimo pitanja poput: da li je uopšte potrebno vršiti kontrolno merenje, kada se ono vrši, kojim instrumentima i koliko kontrolnih merenja je potrebno izvršiti? Ova pitanja duboko zadiru u doktrinu bilo koje nauke i prakse.

**Cilj:** U ovom radu razmatra se eventualna neophodnost primene kontrolnih merenja sa teorijskog i praktičnog aspekta.

**Metode:** U radu smo se bavili terapijom kognitivnih i motoričkih funkcija kod osoba sa povredom mozga, odnosno fenomenima pamćenja, pažnje, orijentacije i praksičkim funkcijama. Uzorak je činilo 15 muških i ženskih ispitanika starosti od 15 do 20 godina. Kognitivne i praksičke funkcije ispitivali smo subtestovima The Mental Status in Neurology (Stub & Block, 1983) i Cognitive Assessment Ability (Adamovich et al., 1985). Izbor subtestova je u ovom slučaju bio orijentisan ka stečenim znanjima, iskustvima, poluapstraktnom i apstraktnom mišljenju. Nakon eksperimentalnog tretmana koji je trajao četiri nedelje, izvršili smo kontrolno merenje.

**Rezultati:** Dobijeni rezultati pokazuju opravdanost primene kontrolnog merenja kod testiranih ispitanika. Oni ukazuju na značaj kontrolnog merenja, koji se ogleda u mogućnost evidentiranja napretka tretiranih pacijenta u ispitivanim domenima. Kontrolnim merenjem, dakle, možemo utvrditi napredak ili zastoj u oporavku pojedinih delova ispitivanih i tretiranih funkcija. Rezultati istraživanja nedvosmisleno ukazuju na statistički značajnu razliku (od  $p < 0,5$  do  $p < 0,1$ ) između prvog i drugog merenja u ispitivanim funkcijama.

**Zaključak:** Na osnovu dobijenih rezultata možemo zaključiti da je kontrolno merenje neophodan pristup u potvrdi značaja primene aktualnih terapijskih postupaka, njihovoj modifikaciji i doziranju.

**Ključne reči:** kontrolno merenje, povrede mozga, terapija, testiranje

\* Rad je proistekao iz projekta „Kliničko forenzička istraživanja povreda – Povrede glave i restorativna neurologija“, čiju je realizaciju podržalo Ministarstvo nauke, tehnološkog razvoja i inovacija Republike Srbije (1996–2000. Projekat br. 13M22)

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## THE NECESSITY OF APPLICATION OF CONTROL MEASUREMENT IN THERAPY OF PERSONS WITH BRAIN INJURY\*

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**Introduction:** Control measurement is common in experimental situations, while in practice, it is often overlooked or just reduced to a conversation with the patient. It is obvious that we have to ask questions such as: is it necessary to perform a control measurement at all, when is it performed, with which instruments and how many control measurements should be performed? These questions go deep into the doctrine of any science and practice.

**Aim:** In this paper, the eventual necessity of performing control measurements is considered from the theoretical and practical aspects.

**Method:** In this work, we dealt with the therapy of cognitive and motor functions, that is, the phenomena of memory, attention, orientation, and practical functions. The sample consisted of 15 male and female respondents aged 15 to 20 years. We examined their cognitive and practical functioning using subtests from The Mental Status in Neurology (Stub & Block, 1983) and Cognitive Assessment Ability (Adamovich et al, 1985). The choice of subtests was oriented towards acquired knowledge, experiences, semi-abstract and abstract thinking from the patient’s immediate environment. Upon application of the experimental model, which lasted four weeks, we performed a control measurement.

**Results:** The obtained results show the justification of the application of the control measurement in the tested subjects. The results indicate the importance of control measurement, which is reflected in the possibility of recording the progress of treated patients in the examined domains. By control measurement, therefore, we can determine progress or stagnation in the recovery of certain parts of the tested and treated functions. The research results unequivocally indicate a statistically significant difference ( $p < 0.5$  to  $p < 0.1$ ) between the first and second measurements in the examined functions.

**Conclusion:** Based on the obtained results, we can conclude that control measurement is a necessary approach in confirming the correctness of using current therapeutic procedures, their modification, and dosage.

**Keywords:** *control measurement, brain injury, therapy, testing*

\* This paper is part of the project “Clinical-Forensic Injury Investigations – Head Injuries and Restorative Neurology” supported by the Ministry of Science, Technological Development and Innovation of the Republic of Serbia (1996-2000, No. 13M22)

## UTICAJ TINITUSA NA SUBJEKTIVNI DOŽIVLJAJ HENDIKEPA KOD OSOBA SA PREZBIAKUZIJOM\*

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**Uvod:** Prezbiakuzija i tinitus su veoma učestala stanja kod starijih osoba. Postoji dosta dokaza, baziranih na samoproceni, da obe pojave utiču na kvalitet života i psihosocijalno funkcionisanje ovih osoba. Međutim, većina istraživanja se bavila izolovano prezbiakuzijom i tinitusom, tako da ima veoma malo dokaza kako ova dva stanja deluju kada zajedno egzistiraju.

**Cilj:** Cilj ovog rada je da se ispita kako tinitus utiče na subjektivni doživljaj hendikepa kod osoba sa prezbiakuzijom.

**Metode:** U uzorku je bilo 100 ispitanika oba pola, prosečne starosti 67,11 godina. Uzorak je bio podeljen u dve grupe: E1 – ispitanici sa prezbiakuzijom i tinitusom i E2 – ispitanici sa prezbiakuzijom bez tinitusa. Korišćena su dva upitnika za prikupljanje podataka: Upitnik za prikupljanje opštih sociodemografskih podataka i Inventar slušnog hendikepa za starije.

**Rezultati:** Rezultati pokazuju da tinitus značajno utiče na subjektivni doživljaj hendikepa kod osoba sa prezbiakuzijom u emocionalnom (E1 M=30,58; E2 M – 20,68; p=0,001) i socijalnom funkcionisanju (E1 M=29,49; E2 M=22; p=0,006), kao i u ukupnim rezultatima (E1 M=60,05 E2 M=42,68; p=0,001).

**Zaključak:** Na osnovu ovih rezultata može se zaključiti da tinitus, koji je čest entitet u prezbiakuziji, predstavlja veoma ozbiljnu pojavu koja značajno utiče na lični doživljaj izraženosti teškoća u psihosocijalnom funkcionisanju odraslih osoba.

**Ključne reči:** *prezbiakuzija, tinitus, odrasle osobe, oštećenje sluha*

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\* Rad je proistekao iz projekta „Uticaj kohlearne implantacije na edukaciju gluвих i nagluvih osoba” (br. 179055), čiju je realizaciju podržalo Ministarstvo nauke, tehnološkog razvoja i inovacija Republike Srbije (ev. broj 451-03-47/2023-01/200096).

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## THE INFLUENCE OF TINNITUS ON THE INDIVIDUAL PERCEPTION OF THE HEARING HANDICAP IN PERSONS WITH PRESBYACUSIS\*

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**Introduction:** Presbycusis and tinnitus are very common conditions in elderly people. There is a lot of evidence, based on self-assessment, that both of these phenomena affect the quality of life and psychosocial functioning of persons. Most research has dealt with these phenomena in isolation, so there is very little evidence of how these two conditions work when they coexist.

**Aim:** The aim of this paper was to examine how tinnitus affects the individual perception of hearing handicap in people with presbycusis.

**Method:** The sample consisted of 100 subjects of both genders with an average age of 67.11. The sample was divided into two groups: E1 – subjects with presbycusis and tinnitus and E2 – subjects with presbycusis without tinnitus. Two questionnaires were used for data collection: the Questionnaire for collecting general socio-demographic data and the Hearing Handicap Inventories for the Elderly.

**Results:** The results show that tinnitus significantly affects the individual perception of handicap in persons with presbycusis in both emotional (E1 M=30,58; E2 M – 20.68;  $p=0,001$ ) and social functioning (E1 M =29.49; E2 M=22;  $p=0,006$ ), as well as in the overall results (E1 M=60,05 E2 M=42,68;  $p=0,001$ ).

**Conclusion:** Based on these results, it can be concluded that tinnitus, which is a common entity in presbycusis, is a very serious phenomenon that significantly affects personal experience of difficulties in the psychosocial functioning of adults.

**Keywords:** *presbycusis, tinnitus, elderly people, hearing impaired*

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## IDIOPATSKA OBOSTRANA AKUTNA SENZORINEURALNA NAGLUVOST I GLUVOĆA

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**Uvod:** Akutna gluvoća je nagli senzorineuralni gubitak sluha od 30 dB ili veći, nastao u periodu od 72 sata na najmanje tri uzastopne frekvencije. Idiopatska obostrana akutna senzorineuralna gluvoća (IOASG) i/ili naglupost se relativno retko javljaju u odnosu na jednostranu – u manje od 5% svih slučajeva. Pretpostavlja se da je ovo drugačiji, mnogo ozbiljniji klinički entitet od jednostrane. Zapažene su dramatične psihičke, socijalne i emocionalne posledice kod pacijenata sa naglo nastalim obostranim senzornim deficitom zbog potencijalno trajnog oštećenja sluha. Etiološki faktori su još uvek nepoznati. Protokoli lečenja su opisani, ali nema konsenzusa o izboru terapijskog modaliteta. Predloženi prognostički faktori oporavka za jednostranu idiopatsku akutnu senzorineuralnu naglupost u slučaju obostrane nagluposti ne mogu biti potvrđeni s obzirom na nisku učestalost ovog poremećaja.

**Cilj:** Na osnovu pregleda literature cilj istraživanja je analiza etioloških faktora, dijagnostičkih procedura i mogućnost lečenja idiopatske obostrane akutne senzorineuralne nagluposti.

**Metode:** Analiza literature izvršena je pregledom elektronskih baza MEDLINE, SCOPUS i Google Scholar. Za pretraživanje je korišćeno nekoliko ključnih reči i njihovih kombinacija: idiopatska akutna senzorineuralna naglupost, idiopatska obostrana akutna senzorineuralna naglupost i gluvoća, etiološki faktori, dijagnostika, lečenje.

**Rezultati:** Pacijenti sa IOASG su mlađeg starosnog doba. Uočena je veća prevalenca specifičnih parametara za autoimune bolesti, kao i lošiji oporavak sluha nakon primenjene terapije.

**Zaključak:** Neophodna su dodatna istraživanja na većem broju pacijenata koja bi dala doprinos boljem razumevanju ovog kliničkog entiteta, otkrivanju etioloških faktora, a samim tim i uspešnijem lečenju.

**Ključne reči:** *idiopatska obostrana akutna senzorineuralna naglupost, etiološki faktori, dijagnostika, lečenje*

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## IDIOPATHIC BILATERAL SUDDEN SENSORINEURAL HEARING LOSS AND DEAFNESS

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**Introduction:** Acute deafness is a sudden sensorineural hearing loss of 30 dB or greater, occurring within a 72-hour period in at least three consecutive frequencies. Idiopathic bilateral sudden sensorineural deafness (IBSSD) and/or hearing loss occur relatively rarely compared to unilateral, in less than 5% of all cases. This is assumed to be a different, much more severe clinical entity than unilateral. Dramatic psychological, social, and emotional consequences have been observed in patients with sudden bilateral sensory deficit due to potentially permanent hearing loss. Etiological factors are still unknown. Treatment protocols have been described, but there is no consensus on the choice of therapeutic modality. The proposed prognostic factors of recovery for unilateral idiopathic sudden sensorineural hearing loss in bilateral patients cannot be confirmed due to the low frequency of this phenomenon.

**Aim:** The aim of this paper was the analysis of etiological factors, diagnosis, and the possibility of treatment of idiopathic bilateral sudden sensorineural hearing loss based on the literature review.

**Method:** The literature analysis was performed by reviewing the electronic databases MEDLINE, SCOPUS, and Google Scholar. Several key words and their combinations were used for the search: idiopathic sudden sensorineural hearing loss, idiopathic bilateral sudden sensorineural hearing loss and deafness, etiological factor, diagnosis, treatment.

**Results:** Patients with IBSSD are younger. A higher prevalence of specific parameters for autoimmune diseases and worse hearing recovery after treatment was observed.

**Conclusion:** Additional research on a larger number of patients is necessary, which would contribute to a better understanding of this clinical entity, the detection of etiological factors and, therefore, more successful treatment.

**Keywords:** *idiopathic bilateral sudden sensorineural hearing loss, etiological factors, diagnosis, treatment*

## OPSTRUKTIVNA APNEJA TOKOM SPAVANJA – DIJAGNOSTIČKI I TERAPIJSKI ZNAČAJ

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Opstruktivna apneja tokom spavanja (*Obstructive sleep apnea* – OSA) je poremećaj spavanja usled povremenih prekida disanja koja traju duže od 10 s. Dijagnoza OSA kod odraslih bolesnika i dece postavlja se na osnovu anamneze, dijagnostičkih upitnika, kliničke slike i kliničkog pregleda. Najčešći upitnici koji se koriste za dijagnozu su: Epworthova skala pospanosti, Berlinski upitnik i STOP BANG upitnik. Svi upitnici su jednostavni, jasni, potrebno je kratko vreme za popunjavanje, te su bitni za izbor bolesnika za polisomnografiju ili poligrafiju. U budnom stanju nije moguće dijagnostikovati kolaps gornjih disajnih puteva, zbog čega se nalaz u gornjim disajnim putevima značajno razlikuje u budnom stanju i spavanju. Fiberendoskopijom gornjeg disajnog puta u farmakološki induciranom spavanju (eng. *Drug induced sleep endoscopy* – DISE) možemo prikazati mesto, konfiguraciju i težinu opstrukcije i kolapsa gornjeg disajnog puta. Polisomnografija je zlatni standard u dijagnostici OSA. Apneja-hipopneja indeks (AHI) je ukupan broj epizoda apneje i hipopneje tokom spavanja podeljen sa satima spavanja, računa se za svaki stadijum spavanja i ukupno za celo spavanje. Faktor je česta kod pacijenata s arterijskom hipertenzijom, srčanom slabosti i atrijalnom fibrilacijom i dijabetes melitusom. OSA je faktor rizika za moždani udar nezavisno od pola, indeksa telesne mase (BMI), dijabetesa i hipertenzije. Metode lečenja najjednostavnije se mogu svrstati u dve grupe: konzervativne i hirurške. Konzervativno lečenje uključuje bihevioralne intervencije, CPAP (*Continuous positive airway pressure*) terapiju, pozicijsku terapiju i terapiju oralnim aparatima (*Mandibular Advancement Device*) čiji cilj je da pomere mandibulu napred, čime se povećava gornji disajni put i ograničava kolaps. Prema dosadašnjim saznanjima, uopšten je stav da je hirurško lečenje bolje primeniti kod bolesnika s patološkim anatomskim promenama koje uzrokuju opstrukciju, a konzervativna CPAP terapija superiornija je kod bolesnika s kolapsom. Relativno noviji modalitet lečenja OSA je stimulacija *nervusa hipoglosusa*, koja uključuje implantaciju uređaja koji, kada je uključen, stimuliše *nervus hipoglossus* kako bi se ograničio kolaps disajnih puteva.

**Ključne reči:** *opstruktivna apneja tokom spavanja, DISE, polisomnografija, CPAP uređaj, stimulator nervusa hipoglosusa, arterijska hipertenzija, moždani udar*

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## OBSTRUCTIVE SLEEP APNEA – DIAGNOSTIC AND THERAPEUTIC SIGNIFICANCE

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Obstructive sleep apnea (OSA) is a sleep disorder caused by intermittent breathing interruptions that last longer than 10s. The diagnosis of OSA in adult patients and children is made on the basis of history, diagnostic questionnaires, clinical picture, and clinical examination. The most common questionnaires used for diagnosis are: Epworth Sleepiness Scale, Berlin Questionnaire and STOP BANG Questionnaire. All questionnaires are simple, clear, take a short time to fill out, and are important for the selection of patients for polysomnography or polygraphy. In the awake state, it is not possible to diagnose the collapse of the upper respiratory tract. Therefore, the findings in the upper respiratory tract differ significantly in the awake state and in sleep. With fiberendoscopy of the upper respiratory tract during pharmacologically induced sleep, DISE (eng. Drug induced sleep endoscopy), we can show the place, configuration, and severity of obstruction and collapse of the upper respiratory tract. Polysomnography is the gold standard in the diagnosis of OSA. The apnea-hypopnea index (AHI) is the total number of episodes of apnea and hypopnea during sleep divided by hours of sleep, calculated for each sleep stage and totaled for the entire sleep. OSA is common in patients with arterial hypertension, heart failure and atrial fibrillation, and diabetes mellitus. OSA is a risk factor for stroke independent of gender, body mass index (BMI), diabetes, and hypertension. Treatment methods can be classified into two groups: conservative and surgical. Conservative treatment includes behavioral interventions, CPAP (Continuous positive airway pressure) therapy, positional therapy, and oral appliance therapy (Mandibular Advancement Device) aimed at moving the mandible forward, thereby increasing the upper airway and limiting collapse. According to current knowledge, the general opinion is that surgical treatment is better applied in patients with pathological anatomical changes that cause obstruction, and conservative CPAP therapy is superior in patients with collapse. A relatively newer treatment modality for OSA is hypoglossal nerve stimulation which involves the implantation of a device that, when turned on, stimulates the hypoglossal nerve to limit airway collapse.

**Keywords:** *obstructive sleep apnea, DISE, polysomnography, CPAP device, hypoglossal nerve stimulator, arterial hypertension, stroke*

VASPITANJE I OBRAZOVANJE IZ PERSPEKTIVE  
PROSVETNIH RADNIKA

EDUCATION AND UPBRINGING FROM  
TEACHERS' PERSPECTIVE

## GUIDELINES FOR THE QUALITY INDIVIDUALIZED PROGRAMS FOR CHILDREN WITH SPECIAL NEEDS IN ORDER TO PROVIDE AN INCLUSIVE SCHOOL

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**Introduction:** The paper summarizes the key findings of the analysis of individualized programs for children with special needs in primary education programs with adapted delivery and additional professional support in mainstream schools.

**Aim:** The main purpose of the study was to determine the dominant structure of individualized programs and to provide professional guidelines for further planning.

**Method:** The study is based on an analysis of 174 individualized programs for 58 children with special needs in 30 elementary mainstream schools. Data were obtained from rating scales. Quantitative data were analyzed using the SPSS 14.0 program. Qualitative data were obtained on 11 substantive parts by entering examples, divided into meaning units, and closed-coded.

**Results:** The results were divided into nine sections according to the elements of the analysis. It turned out that parents and students were largely not involved in the planning of the individualized program. Out of a total of 174 individualized programs, only 9.2% of the sample contained suggestions from parents and 8% of students. More than half of the objectives were not set in a measurable way (only 27.6%), and additional professional help was mostly provided individually, outside the classroom (73%). Strategies for the child's independence (40.2%) and socialization (37%) were represented in less than half of the cases.

**Conclusion:** The study shows that individualized programs for children with special needs tend to lack elements that are key to their inclusive education. In addition to the findings, the analysis showed the need for uniform national guidelines for planning a quality individualized program and the need for additional professional training for practitioners in mainstream schools.

**Keywords:** *individualized program, children with special needs, quality planning, tailored teaching methods, measurable objectives*

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## INKLUZIJA U PREDŠKOLSKOM VASPITANJU I OBRAZOVANJU – IZAZOVI I REŠENJA

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**Uvod:** Inkluzivno obrazovanje predstavlja potpuno uključivanje dece sa specifičnim vaspitno-obrazovnim potrebama u redovan sistem obrazovanja. Sa sobom nosi mnoge koristi, ali i teškoće. Kao pozitivan primjer rješenja iz prakse pokazao se Kutak za rani rast i razvoj u JPU „Trol“ Derventa.

**Cilj:** Rad ima za cilj da predstavi Kutak za rani rast i razvoj u JPU „Trol“ Derventa kao studiju slučaja.

**Rezultati:** Kutak za rani rast i razvoj osnovan je 2021. godine. Već 2022. nagrađen je nagradom za inovativne nastavnike (NIN), najvrijednijim priznanjem među edukatorima i edukatoricama na svim nivoima obrazovanja u Bosni i Hercegovini. U samom Kutku za svako dijete sa specifičnim vaspitno-obrazovnim potrebama stručna služba (defektolog, pedagog, saradnik za vaspitače) u saradnji sa roditeljima izrađuje IOP. Redovne aktivnosti u vrtićkoj grupi koje dijete ne može da prati, stručna služba prilagođava i provodi. Kutak je takođe i mjesto gdje svako dijete dobija individualan defektološki tretman.

**Zaključak:** Način rada koji se primenjuje u Kutku za rani rast i razvoj svakom djetetu omogućava maksimalno ispunjavanje njegovih potencijala, ali i vaspitanje i obrazovanje u najmanje restriktivnoj sredini u odnosu na trenutne potrebe, princip na kom počiva inkluzija.

**Ključne reči:** *inkluzija, predškolsko vaspitanje, individualni obrazovni plan, stavovi, roditelji, vaspitači*

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## INCLUSION IN PRESCHOOL EDUCATION – CHALLENGES AND SOLUTIONS

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**Introduction:** Inclusive education represents the complete involvement of children with specific educational needs in the regular education system. Inclusion brings many benefits as well as difficulties. The “Corner for Early Development” in the preschool institution “Trol” in Derventa is a positive example.

**Aim:** The paper aims at presenting the “Corner for Early Development” as a case study.

**Results:** The “Corner for Early Development” was established in 2021. In 2022 it was awarded with the NIN – award for innovative teachers, the most valuable recognition among educators at all levels of education in Bosnia and Herzegovina. An IEP is created for every child with special educational needs by the professional service of the institution, in collaboration with their parents. Each activity in the preschool group the child cannot follow is adapted and implemented in the “corner for early development”. It is also a place for every child with specific educational needs to get individual treatment.

**Conclusion:** In this way, every child has an opportunity to fully develop their potential and have access to education in the least restrictive environment according to their current needs, which is a principle inclusion is based on.

**Keywords:** *inclusion, case study, preschool education, individual educational plan, an example of good practice*



## POVEZANOST UČESTALOSTI USAVRŠAVANJA ODGAJATELJA SA SAMOPROCJENOM KOMPETENCIJA ZA INKLUZIJU DJECE S POREMEĆAJEM IZ SPEKTRA AUTIZMA

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**Uvod:** Imajući na umu da nakon završenog formalnog obrazovanja postoje relativno rijetki modeli stručnog usavršavanja odgajatelja djece rane i predškolske dobi koji podupiru razvoj njihovih kompetencija za pojedinačne strategije podrške koje se mogu primijeniti u radu s djecom različitih vrsta teškoća u razvoju, pa tako i s djecom s poremećajem iz spektra autizma (PSA), praktičnost inkluzivnog odgoja i obrazovanja još uvijek se smatra problematičnom u očima nekih odgajatelja. Osim toga, odgajatelji se suočavaju i s drugim izazovima inkluzije, budući da brojni međunarodni i domaći dokumenti naglašavaju da inkluzija koristi svoj djeci jer je usmjerena na toleranciju i različite odgojno-obrazovne potrebe djece, čime se promiče pravednije društvo. Unatoč tome, čini se da odgajatelji s ograničenijim resursima za stručno usavršavanje u području svoga rada s djecom različitih teškoća u razvoju, pa tako i s djecom s PSA, vjerojatno su još manje osposobljeni za ovu ulogu.

**Cilj:** Cilj rada je ispitati povezanost između učestalosti usavršavanja i samoprocjene kompetencija odgajatelja za inkluzivnu praksu s djecom s PSA.

**Metode:** Za potrebe istraživanja konstruiran je upitnik primijenjen na 135 odgajatelja iz dječjih vrtića u Republici Hrvatskoj. Postavljena je hipoteza da postoji statistički značajna povezanost između učestalosti usavršavanja i samoprocjene kompetencija odgajatelja za rad s djecom s PSA. Za testiranje hipoteze korišten je neparametrijski Spearmanov koeficijent korelacije u bootstrapped modelu.

**Rezultati:** Rezultati su pokazali da postoji statistički značajna umjerena pozitivna stohastička korelacija između učestalosti usavršavanja i procjene kompetencija. To znači da je konstatirana povezanost, odnosno učestalost usavršavanja odgajatelja povezana je sa samoprocjenom viših kompetencija za inkluziju djece s PSA.

**Zaključak:** Obzirom da je već u ranom i predškolskom sustavu odgoja i obrazovanja potrebno identificirati rane simptome radi upućivanja djece s PSA na ranu intervenciju, rezultati impliciraju da, kako na samoprocjenu kompetencija, tako i na stjecanje novih strategija u radu odgajatelja s djecom s PSA, utječe veća potreba za organiziranim stručnim usavršavanjem odgajatelja.

**Ključne reči:** *djeca s poremećajem iz spektra autizma, inkluzivna praksa, odgajatelji, samoprocjena kompetencija odgajatelja, stručno usavršavanje odgajatelja*

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## THE RELATIONSHIP OF THE FREQUENCY OF TRAINING OF PRESCHOOL TEACHERS WITH THE SELF-ASSESSMENT OF COMPETENCIES FOR THE INCLUSION OF CHILDREN WITH AUTISM SPECTRUM DISORDER

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**Introduction:** Bearing in mind that after completing formal education, there are relatively rare models of professional training for preschool teachers that support the development of their competencies for individual support strategies that can be applied in working with children of various types of developmental difficulties, including children with autism spectrum disorder (ASD), the practicality of inclusive education is still considered problematic in the eyes of some preschool teachers. In addition, preschool teachers face other challenges of inclusion, as numerous international and domestic documents emphasize that inclusion benefits all children because it is focused on tolerance and the different educational needs of children, which promotes a fairer society. Despite this, it seems that preschool teachers with more limited resources for professional development in the field of their work with children with various developmental difficulties, including children with ASD, are probably even less qualified for this role.

**Aim:** The aim of this paper was to examine the connection between the frequency of training and the self-assessment of preschool teachers' competencies for inclusive practice with children with ASD.

**Method:** For the purposes of the research, a questionnaire was constructed and applied to 135 kindergarten teachers in the Republic of Croatia. It was hypothesized that there is a statistically significant relationship between the frequency of training and the self-assessment of preschool teachers' competencies for working with children with ASD. To test the hypothesis, the non-parametric Spearman correlation coefficient was used in the bootstrapped model.

**Results:** The results showed a statistically significant moderate positive stochastic correlation between the frequency of training and the assessment of competencies. This means that a connection has been established, that is, the frequency of preschool teacher training is related to the self-assessment of higher competencies for the inclusion of children with ASD.

**Conclusion:** Given that it is necessary to identify early symptoms already in the early and preschool education system to refer children with ASD to early intervention, the results imply that both self-assessment of competencies and the acquisition of new strategies in the work of preschool teachers with children with ASD, are affected by a greater need for organized professional training of preschool teachers.

**Keywords:** *children with autism spectrum disorder, inclusive practice, preschool teachers, preschool teachers' professional training, self-assessment of preschool teachers' competencies*

## PERCEPCIJA NASTAVNIKA O EMOCIONALNOM BLAGOSTANJU, SOCIJALNOJ INKLUZIJI I AKADEMSKOM SAMOPOIMANJU UČENIKA

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**Uvod:** Većina evropskih zemalja priznala je da inkluzivno obrazovanje osigurava jednaka obrazovna prava za sve učenike i nastoji da razvije kvalitet obrazovanja u učionicama tako da svi učenici imaju koristi od inkluzivnog obrazovanja. Pored akademskih postignuća, socijalni i emocionalni razvoj učenika je jedan od važnih ciljeva inkluzivnog obrazovanja. Emocionalno blagostanje učenika, socijalna inkluzija i akademsko samopoimanje su tri pokazatelja inkluzije koja su u direktnoj vezi sa učenikovim akademskim postignućima i opštim zadovoljstvom kvalitetom školskog života.

**Cilj:** Cilj istraživanja je da se ispita da li postoje razlike u inkluziji učenika u odnosu na emocionalno blagostanje, socijalnu inkluziju i akademsko samopoimanje, s obzirom na pol učenika i postojanje smetnji u razvoju.

**Metode:** Uzorak istraživanja uključuje 38 nastavnika iz Republike Hrvatske koji su procenjivali 76 učenika sa i bez smetnji u razvoju, koristeći hrvatsku verziju Upitnika percepcije inkluzije za nastavnike PIQ-T.

**Rezultati:** Rezultati istraživanja su pokazali da učenici sa smetnjama u razvoju postižu slabije emocionalno blagostanje, socijalnu inkluziju i akademsko samopoimanje u odnosu na učenike bez smetnji u razvoju. Takođe, nisu utvrđene razlike u percepciji nastavnika o inkluziji u odnosu na pol učenika.

**Zaključak:** Rezultati govore da u daljoj implementaciji inkluzivnog obrazovanja više pažnje treba posvetiti socijalnom i emocionalnom blagostanju učenika sa smetnjama u razvoju.

**Ključne reči:** *inkluzivno obrazovanje, učenici sa smetnjama u razvoju, emocionalno blagostanje, socijalna inkluzija, akademsko samopoimanje, nastavnici*

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## TEACHERS' PERCEPTION OF STUDENTS' EMOTIONAL WELL-BEING, SOCIAL INCLUSION, AND ACADEMIC SELF-CONCEPT

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**Introduction:** Most European countries have acknowledged inclusive education to ensure equal educational rights for all students and strive to develop educational quality in classrooms so that all students benefit from inclusive education. In addition to academic achievements, the social and emotional development of students is one of the important goals of inclusive education. The student's emotional well-being, social inclusion, and academic self-concept are three indicators of inclusion, which are directly related to the student's academic achievements and general satisfaction with the quality of school life.

**Aim:** of the research was to examine the differences in the inclusion of students in relation to emotional well-being, social inclusion, and academic self-concept, considering the gender of the students and the existence of developmental disabilities.

**Method:** The study sample included 38 teachers from the Republic of Croatia who assessed 76 students with and without disabilities using the Croatian version of the Perceptions of Inclusion Questionnaire for teachers PIQ-T.

**Results:** The results of the research showed that students with disabilities achieved weaker emotional well-being, social inclusion, and academic self-concept compared to students without disabilities. Furthermore, no differences were found in the teacher's perception of inclusion related to the gender of the student.

**Conclusion:** The results suggest that in the further implementation of inclusive education, more attention should be paid to the social and emotional well-being of students with disabilities.

**Keywords:** *inclusive education, students with disabilities, emotional well-being, social inclusion, academic self-concept, teachers*

## KULTURALNE KOMPETENCIJE U OBRAZOVANJU: REZULTATI SAMOPROCENE NASTAVNIKA SREDNJE ŠKOLE

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**Uvod:** Kulturalne kompetencije, kao skup vrednosti, znanja, stavova i veština potrebnih za razumevanje i poštovanje kulturalno različitih pojedinaca, te uspostavljanje pozitivnih i konstruktivnih odnosa sa njima, smatraju se važnim aspektom profesionalnog razvoja nastavnika u okvirima interkulturalnog obrazovanja.

**Cilj:** Uvid u nivo razvijenosti kulturalnih kompetencija nastavnika srednje škole – u domenima kulturalne svesnosti, znanja i veština, uz sagledavanje uticaja pola i starosti ispitanika na rezultate samoprocene.

**Metode:** Uzorak je činilo 254 nastavnika (78,7% ženskog pola), starosti od 23 do 63 godine ( $M = 45,7$ ;  $SD = 9,11$ ), iz osam beogradskih srednjih škola. Podaci su prikupljeni Kontrolnom listom za samoprocenu kulturalne kompetencije (Cultural Competence Self-Assessment Checklist), koju čini 36 stavki na četvorostepenoj skali Likertovog tipa ( $\alpha = .95$ ), grupisanih u tri podskale: kulturalna svesnost ( $\alpha = .77$ ), kulturalno znanje ( $\alpha = .91$ ) i kulturalne veštine ( $\alpha = .92$ ).

**Rezultati:** Nastavnici srednje škole poseduju zadovoljavajući nivo kulturalnih kompetencija ( $M = 3,13$ ;  $SD = .47$ ), pri čemu u najvećoj meri raspolažu kulturalnim znanjem ( $M = 3,38$ ;  $SD = .52$ ), zatim kulturalnim veštinama ( $M = 3,10$ ;  $SD = .59$ ) i, na kraju, kulturalnom svesnošću ( $M = 2,88$ ;  $SD = .49$ ). Mlađi i nastavnici ženskog pola procenjuju sopstveni nivo ukupnih kulturalnih kompetencija višim u odnosu na starije ( $r = 0,21$ ,  $p < 0,01$ ) i nastavnike muškog pola ( $t(214) = -2,26$ ,  $p < 0,05$ ). Najznačajnije razlike, kada je u pitanju pol nastavnika, beleže se na nivou kulturalnih veština ( $t(240) = -3,24$ ,  $p < 0,01$ ), dok su u odnosu na starost, razlike najizraženije u domenu kulturalnog znanja ( $r = 0,23$ ,  $p < 0,01$ ).

**Zaključak:** Iako nastavnici svoje kulturalne kompetencije ocenjuju na relativno visokom nivou, prostor za njihovo unapređivanje postoji. Opravdano bi bilo implementirati programe stručnog usavršavanja koji bi, kroz jačanje kulturalne svesnosti, znanja i veština nastavnika, doprineli demokratskoj kulturi, interkulturalnom obrazovanju i kulturalno kompetentnoj praksi u obrazovnom radu.

**Ključne reči:** *kulturalne kompetencije, interkulturalno obrazovanje, nastavnici srednje škole*

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## CULTURAL COMPETENCIES IN EDUCATION: RESULTS FROM SELF-ASSESSMENT OF HIGH SCHOOL TEACHERS

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**Introduction:** Cultural competencies, as a set of values, knowledge, attitudes and skills needed for understanding and respecting culturally different individuals, and establishing positive and constructive relations with them, are considered an important aspect of the professional development of teachers in the framework of intercultural education.

**Aim:** An insight into the level of cultural competencies of high school teachers – in the domains of cultural awareness, knowledge and skills, while looking at the influence of gender and age of respondents on the results of self-assessment.

**Method:** The sample consisted of 254 teachers (78.7% female), aged 23 to 63 ( $M = 45.7$ ;  $SD = 9.11$ ), from eight Belgrade high schools. Data were collected with the Cultural Competence Self-Assessment Checklist, which consists of 36 items on a four-point Likert-type scale ( $\alpha = .95$ ), grouped into three subscales: cultural awareness ( $\alpha = .77$ ), cultural knowledge ( $\alpha = .91$ ) and cultural skills ( $\alpha = .92$ ).

**Results:** High school teachers report a satisfactory level of cultural competence ( $M = 3.13$ ;  $SD = .47$ ), whereby they have the most cultural knowledge ( $M = 3.38$ ;  $SD = .52$ ), followed by cultural skills ( $M = 3.10$ ;  $SD = .59$ ) and, finally, cultural awareness ( $M = 2.88$ ;  $SD = .49$ ). Younger and female teachers estimate their own level of overall cultural competence higher than older ( $r = 0.21$ ,  $p < 0.01$ ) and male teachers ( $t(214) = -2.26$ ,  $p < 0.05$ ). The most significant differences, when it comes to the teacher's gender, are recorded at the level of cultural skills ( $t(240) = -3.24$ ,  $p < 0.01$ ), while in relation to age, the differences are most pronounced in the domain of cultural knowledge ( $r = 0.23$ ,  $p < 0.01$ ).

**Conclusion:** Although teachers rate their cultural competence at a relatively high level, there is room for improvement. It would be desirable to implement professional development programs that, through the strengthening of cultural awareness, knowledge and skills of teachers, would contribute to democratic culture, intercultural education and culturally competent practice in educational work.

**Keywords:** *cultural competencies, intercultural education, high school teachers*

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## POVEZANOST PANDEMIJE COVID-19 SA MENTALNIM ZDRAVLJEM EDUKACIJSKO-REHABILITACIJSKIH STRUČNJAKA I PROSVJETNIH RADNIKA

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**Uvod:** S obzirom na to da je COVID-19 pandemija uzrokovala vanredne situacije u zdravstvenim, ekonomskim i drugim sektorima, taj uticaj se proširio i na odgojno-obrazovni sistem. Istraživanje je realizovano krajem 2021. godine, kada su novi načini rada, učenje na daljinu i usvajanje vještina i znanja putem online platformi bili neminovni za sve učenike, ali i za edukacijsko-rehabilitacijske stručnjake iz redovnih i specijalnih ustanova, kao i za prosvjetne radnike iz redovnog odgojno-obrazovnog sistema.

**Cilj:** Cilj ovog istraživanja je utvrditi nivo depresije, anksioznosti i stresa edukacijsko-rehabilitacijskih stručnjaka i prosvjetnih radnika tokom pandemije COVID-19.

**Metode:** Za potrebe istraživanja korištena je „Depression, Anxiety and Stress Scale – 21 Items (DASS-21)“ koja sadrži ukupno 21 varijablu i koristi se za samoprocjenu emocionalnog stanja depresije, anksioznosti i stresa. Istraživanjem su obuhvaćena 324 ispitanika oba pola, različitih godina radnog staža i profesionalnog usmjerenja. Od ukupnog broja ispitanika 244 (75%) je ženskog pola, dok je 80 ispitanika (25%) muškog pola, od kojih su 159 ispitanika (49%) edukacijsko-rehabilitacijski stručnjaci, a 165 ispitanika (51%) prosvjetni radnici iz redovnog odgojno-obrazovnog sistema.

**Rezultati:** Nivo depresije, anksioznosti i stresa viši je kod edukacijsko-rehabilitacijskih stručnjaka svih usmjerenja (specijalnih edukatora i rehabilitatora, logopeda i audiologa, socijalnih pedagoga) u odnosu na nivo depresije, anksioznosti i stresa kod prosvjetnih radnika (vaspitača, učitelja, nastavnika i profesora) iz redovnog odgojno-obrazovnog sistema. Rezultati t-testa ( $t=8,495$ ;  $df=322$ ;  $p=0,000$ ) za nivo depresije, ( $t=8,511$ ;  $df=322$ ;  $p=0,000$ ) za nivo anksioznosti te za nivo stresa ( $t=9,725$ ;  $df=322$ ;  $p=0,000$ ).

**Zaključak:** Rezultatima ovog istraživanja, na osnovu samoprocjene, uočeno je da je nivo depresije, anksioznosti i stresa viši kod edukacijsko-rehabilitacijskih stručnjaka u odnosu na prosvjetne radnike.

**Ključne riječi:** *pandemija COVID-19, edukacijsko-rehabilitacijski stručnjaci, prosvjetni radnici, mentalno zdravlje edukacijsko-rehabilitacijskih stručnjaka, mentalno zdravlje prosvjetnih radnika*

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## THE CONNECTION BETWEEN THE COVID-19 PANDEMIC AND THE MENTAL HEALTH OF EDUCATIONAL AND REHABILITATION EXPERTS AND EDUCATIONAL WORKERS

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**Introduction:** Due to the fact that the COVID-19 pandemic caused emergency situations in the health, economic, and other sectors, this influence also spread to the educational system. The research was conducted at the end of 2021 when new ways of working, distance learning, and acquisition of skills and knowledge through online platforms were inevitable for all students, education and rehabilitation experts from regular and special institutions, as well as educators from the regular educational system.

**Aim:** The aim of this research was to determine the level of depression, anxiety, and stress of education and rehabilitation experts and educators during the COVID-19 pandemic.

**Method:** For research purposes, the “Depression, Anxiety and Stress Scale – 21 Items (DASS-21)” was used, which contains a total of 21 variables and is used for self-assessment of the emotional state of depression, anxiety and stress. The research included 324 respondents of both genders, with different years of service and professional orientation. Out of the total number of respondents, 244 (75%) were female, while 80 respondents (25%) were male, of which 159 respondents (49%) were educational and rehabilitation experts and 165 respondents (51%) were educational workers in the regular educational system.

**Results:** The level of depression, anxiety, and stress was higher among educational and rehabilitation experts of all orientations (special educators and rehabilitators, speech therapists and audiologists, social pedagogues) compared to the level of depression, anxiety, and stress among educational workers (educators, teachers, and professors) from the regular education system. The results of the t-test were ( $t=8.495$ ;  $df=322$ ;  $p=0.000$ ) for the level of depression, ( $t=8.511$ ;  $df=322$ ;  $p=0.000$ ) for the level of anxiety, and ( $t=9.725$ ;  $df=322$ ;  $p=0.000$ ) for the level of stress.

**Conclusion:** Based on the self-assessment results of this research, it was observed that the level of depression, anxiety, and stress was higher among educational and rehabilitation experts compared to educators.

**Keywords:** COVID-19 pandemic, education and rehabilitation experts, educators, mental health of education and rehabilitation experts, mental health of educational workers



MENTALNO ZDRAVLJE U SPECIJALNOJ  
EDUKACIJI I REHABILITACIJI

MENTAL HEALTH IN SPECIAL EDUCATION  
AND REHABILITATION

## MERENJE ISPOLJAVANJA ALEKSITIMIJE I AUTISTIČNIH ODLIKA KOD STUDENATA: UNUTRAŠNJA KONZISTENTNOST I KONVERGENTNA VALIDNOST SKALA\*

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**Uvod:** Aleksitimija kao subklinički fenomen i poremećaj iz spektra autizma dele pojedine karakteristike, a jedna od njih je upravo smanjena sposobnost razumevanja i identifikacije kako svojih, tako i tuđih emocija, kao i smanjena i kvalitativno izmenjena sposobnost komunikacije u vezi sa iskazivanjem ovih emocija kroz razgovor sa drugima.

**Cilj:** Usled prepletenosti aleksitimije i autizma cilj našeg rada bio je da na populaciji studenata utvrdimo povezanost dve skale za procenu aleksitimije – Toronto skale za procenu aleksitimije (TAS-20) i Pert upitnika za procenu aleksitimije (PAQ), kao i povezanost skala za procenu aleksitimije i autističnih odlika – crta autizma u oblasti socijalne komunikacije i stereotipnog ponašanja, izraženih kroz koeficijent autističnosti (AQ).

**Metode:** Uzorak je činilo 159 studenata (131 ženskog i 28 muškog pola) starosti od 19 do 36 godina. Za procenu aleksitimije korišćeni su TAS-20 i PAQ, dok je za procenu autističnih odlika korišćen koeficijent autističnosti (AQ).

**Rezultati:** Rezultati istraživanja ukazuju na visoku povezanost dva instrumenta za procenu aleksitimije ( $r_s = .80, p < .001$ ), s tim da je Pert upitnik za procenu aleksitimije imao bolju unutrašnju konzistentnost 0,96, u odnosu na 0,86 i ukazivao na manji procenat osoba sa visokim nivoom aleksitimije (5,7% u odnosu na 12,6%). Između aleksitimije i autističnih odlika utvrđena je umerena pozitivna povezanost (AQ i PAQ:  $r_s = 0,46, p < 0,001$ ; AQ i TAS-20:  $r_s = 0,51, p < 0,001$ ).

**Zaključak:** Prema našim saznanjima, ovo je prvo istraživanje u kome je korišćen Pertov upitnik aleksitimije preveden na srpski jezik. Upitnik je pokazao odličnu unutrašnju konzistentnost, kao i konvergentnu validnost, izraženu kroz visoku korelaciju sa Toronto skalom za procenu aleksitimije. Dobijena korelacija između dve mere za procenu aleksitimije, kao i između skala za procenu aleksitimije i autističnih odlika, u skladu je sa rezultatima prethodnih inostranih istraživanja.

**Ključne reči:** *aleksitmija, konvergentna validnost, autizam, studenti*

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## MEASURING THE MANIFESTATION OF ALEXITHYMIA AND AUTISTIC TRAITS IN STUDENTS: INTERNAL CONSISTENCY AND CONVERGENT VALIDITY OF THE SCALES\*

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**Introduction:** Alexithymia, as a subclinical phenomenon, and a disorder within the autism spectrum share certain characteristics, one of which is a reduced ability to understand and identify one’s own and others’ emotions, as well as a reduced and qualitatively altered ability to communicate and express these emotions through conversation with others.

**Aim:** Due to the interweaving of alexithymia and autism, the aim of our study was to determine, on the student population, the correlation of two alexithymia assessment scales, the Toronto Alexithymia Assessment Scale (TAS-20) and the Perth Alexithymia Questionnaire (PAQ), as well as the association between alexithymia and autistic features – autism in the area of social communication and stereotypic behavior, expressed through the autistic coefficient (AQ).

**Method:** The sample consisted of 159 students (131 female and 28 male) aged 19 to 36 years. The Toronto Alexithymia Assessment Scale (TAS-20) and the Perth Alexithymia Questionnaire (PAQ) were used to assess alexithymia, while the Autism Quotient (AQ) was used to assess autistic features.

**Results:** The results of the study indicate a high correlation between the two instruments for assessing alexithymia ( $r_s = .80, p < .001$ ), with the Perth Alexithymia Questionnaire showing better internal consistency ( $\alpha = .96$ , compared to  $\alpha = .86$ ) and indicating a lower percentage of individuals with high levels of alexithymia (5.7% compared to 12.6%). A moderate positive correlation was found between alexithymia and autistic traits (AQ and PAQ:  $r_s = .46, p < .001$ ; AQ and TAS-20:  $r_s = .51, p < .001$ ).

**Conclusion:** To our knowledge, this is the first study in which the used Perth Alexithymia Questionnaire for alexithymia has been translated into the Serbian language. The questionnaire demonstrated excellent internal consistency, as well as convergent validity, expressed through a high correlation with the Toronto Alexithymia Scale. The obtained correlation between the two measures of alexithymia, as well as between alexithymia and AQ, is in line with the results of previous international studies.

**Keywords:** *alexithymia, convergent validity, autism, students*

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## PROCENA PREPOZNAVANJA EMOCIJA U PROZODIJSKIM KARAKTERISTIKAMA GOVORA

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**Uvod:** O emocionalnom stanju sagovornika može se zaključiti i na osnovu auditivne analize, odnosno interpretacije specifičnih prozodijskih karakteristika govora. Iako manje istraženo u odnosu na sposobnost prepoznavanja emocija u izrazu lica, poteškoće u obradi govorne prozodije mogu predstavljati značajnu prepreku za adekvatno socijalno funkcionisanje i biti jezgro disfunkcije pojedinih poremećaja u razvojnom i odraslom dobu.

**Cilj:** Konstrukcija i provera osnovnih psihometrijskih karakteristika testa za procenu uspešnosti prepoznavanja emocija na osnovu prozodijskih karakteristika govora.

**Metode:** U konstrukciji seta sadržinski neutralnih rečenica, izgovorenih specifičnim tonom, a karakterističnim za svaku od šest osnovnih emocija uz kontrolni/neutralni stimulus, učestvovalo je šest glumaca. Nakon prve faze istraživanja u kojoj je učestvovalo pet ispitanika, odabrano je 35 stimulusa sa najvećim procentom tačnih odgovora, nakon čega je druga faza istraživanja sprovedena na uzorku od 45 ispitanika – 34 sa našeg govornog područja i 11 kojima srpski jezik nije maternji. Na osnovu procenta tačnosti prepoznavanja, za finalni set su odabrana tri stimulusa po emociji, ukupno 21.

**Rezultati:** Pouzdanost finalnog seta je  $\alpha=0,68$ . Empirijska distribucija mera značajno odstupa od modela normalne raspodele ( $W=0,94$ ,  $p=0,02$ ). Najveći procenat tačnosti prepoznavanja zabeležen je za emociju ljutnje (91,1%), dok se gađenje pokazalo kao najteže za prepoznavanje (53,3%). Nisu pronađene značajne razlike između ispitanika čiji se maternji jezici razlikuju ( $U=135,00$ ,  $p=0,17$ ). Postoji statistički značajna negativna povezanost između godina i ukupnog skora na testu ( $r_s=-0,31$ ,  $p=0,04$ ), dok se statistički značajne razlike između muškaraca i žena nisu ispoljile ( $p=0,49$ ).

**Zaključak:** Test procene govorne prozodije, kao mera sposobnosti prepoznavanja emocionalnog stanja drugog, pokazuje potencijal za dalje korišćenje i razvoj.

**Ključne reči:** *prepoznavanje emocija, prozodija, procena*

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## AN ASSESSMENT OF EMOTION RECOGNITION IN THE PROSODIC CHARACTERISTICS OF SPEECH

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**Introduction:** The emotional state of the interlocutor can be deduced by way of auditory analysis, that is, the interpretation of specific prosodic characteristics of speech. Despite being less researched than the ability to recognize emotions in facial expressions, difficulties in processing speech prosody can be a major obstacle to adequate social functioning and the core of the dysfunction of certain disorders both during development and in adulthood.

**Aim:** To develop and examine basic psychometric characteristics of the test for evaluating the success of emotion recognition based on the prosodic characteristics of speech.

**Method:** Six actors participated in the construction of a set of content-neutral sentences, spoken in a specific tone and representative of each of the six basic emotions with a control/neutral stimulus. Following the first phase of the research, in which five subjects took part, 35 stimuli with the highest percentage of correct answers were selected, after which the second phase of the research was conducted on a sample of 45 participants – 34 native speakers and 11 non-native speakers of Serbian. Based on the percentage of recognition accuracy, 3 stimuli per emotion, or 21 in total, were selected for the final set.

**Results:** The reliability of the final set is  $\alpha=.68$ . The empirical distribution of measures deviates significantly from the normal distribution model ( $W=0.94$ ,  $p=.02$ ). The highest percentage of recognition accuracy was recorded for anger (91.1%), while disgust showed to be the most difficult to recognize (53.3%). No significant differences were found among the participants who spoke different mother tongues ( $U=135.00$ ,  $p=.17$ ). There is a significant negative correlation between age and the total test score ( $r_s=-.31$ ,  $p=.04$ ), while no significant differences between males and females were noticed ( $p=.49$ ).

**Conclusion:** As a measure of the ability to recognize the emotional state of another person, the speech prosody assessment test shows potential for further use and development.

**Keywords:** *emotion recognition, prosody, assessment*

## SPECIFIČNOST SIMPTOMA DEPRESIJE I ANKSIOZNOSTI KOD ODRASLIH OSOBA SA OŠTEĆENJEM SLUHA\*

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**Uvod:** Odrasle osobe sa oštećenjem sluha nailaze na probleme u komunikaciji usled kojih dolazi do smanjenog učešća u socijalnim aktivnostima, socijalne izolacije i usamljenosti, koji su usko povezani sa narušenim mentalnim zdravljem i prisutnošću mentalnih teškoća, kao što su anksioznost i depresija.

**Cilj:** Cilj istraživanja je utvrditi specifičnost simptoma anksioznosti i depresije kod odraslih osoba sa oštećenjem sluha. U okviru zadataka istraživanja proveravane su razlike u prisustvu simptoma između osoba sa oštećenjem i osoba bez oštećenja sluha.

**Metode:** Istraživanjem je obuhvaćeno 103 ispitanika sa oštećenjem i 103 ispitanika bez oštećenja. Uzorak čini približno jednak broj ispitanika oba pola, starosti od 20 do 65 godina, gde je prosečna starost ispitanika sa oštećenjem sluha 52,4 (SD = 11,72). Kao instrumenti korišćene su Zungova Skala za samoprocenu anksioznosti (A rating instrument for anxiety) i Zungova Skala za samoprocenu depresije (A self-rating depression scale).

**Rezultati:** Rezultati istraživanja pokazali su da postoje indikacije za razvoj anksioznosti kod odraslih osoba sa oštećenjem sluha. Rezultati ukazuju na odsustvo simptoma depresije kod odraslih osoba sa oštećenjem sluha. Razlike između ispitanika sa oštećenjem sluha i ispitanika urednog sluha na skalama anksioznosti i depresije nisu statistički značajne. U okviru pojedinačnih ajtema uočena je statistički značajna razlika na pojedinim simptomima, koja je detaljnije analizirana u radu.

**Zaključak:** Oštećenje sluha se nije pokazalo kao faktor koji doprinosi javljanju simptoma anksioznosti i depresije. Istraživanja bi se mogla usmeriti na proveravanje samopoštovanja osoba sa oštećenjem sluha, kako bi se rezultati dobijeni na skali depresivnosti mogli detaljnije analizirati.

**Ključne reči:** *oštećenje sluha, odrasli, simptomi anksioznosti i depresije*

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## SPECIFICITY OF SYMPTOMS OF DEPRESSION AND ANXIETY IN ADULTS WITH HEARING LOSS\*

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**Introduction:** Adults with hearing loss encounter communication problems that lead to reduced participation in social activities, social isolation, and loneliness, which are closely related to impaired mental health and the presence of mental difficulties, such as anxiety and depression.

**Aim:** The aim of the research was to determine the specificity of symptoms of anxiety and depression in adults with hearing loss. As part of the research tasks, differences in the presence of symptoms between people with and without hearing impairment were checked.

**Method:** The research included 103 subjects with and 103 subjects without impairment. The sample consisted of an approximately equal number of respondents of both genders, aged from 20 to 65 years, where the average age of respondents with hearing impairment was 52.4 (SD = 11.72). A rating instrument for anxiety and a self-rating depression scale were used as instruments.

**Results:** The results of the research showed that there are indications for the development of anxiety in adults with hearing impairment. The results indicate the absence of depressive symptoms in adults with hearing impairment. The differences between subjects with hearing impairment and subjects with normal hearing on the anxiety and depression scales are not statistically significant. Within individual items, a statistically significant difference was observed in certain symptoms, which was analyzed in more detail in the paper.

**Conclusion:** Hearing loss has not been shown to be a contributing factor to anxiety and depression symptoms. Research activity could be focused on checking the self-esteem of people with hearing impairment so that the results obtained on the depression scale could be analyzed in more detail.

**Keywords:** *hearing loss, adults, symptoms of anxiety and depression*

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## PREPOZNAVANJE I OTKRIVANJE DECE SA MENTALNIM POREMEĆAJIMA NA PRIVREMENOM SMEŠTAJU

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**Uvod:** Dolazak u Prihvatilište podrazumeva određenu kriznu situaciju koja zahteva neodložno izdvajanje iz prethodne sredine u kojoj je dete do tada živelo. To predstavlja neplaniranu životnu promenu koja uslovljava prekidanje veza sa dotadašnjom sredinom. Imajući u vidu kompleksnost problema sa kojima deca dolaze, ranije negativne životne događaje i smeštaj u ustanovu socijalne zaštite, uz sve specifičnosti koje ovaj osetljivi uzrasni period sa sobom nosi, kao važan segment u planiranju daljeg stručnog rada ističe se prepoznavanje i otkrivanje dece sa mentalnim poremećajima te preduzimanje daljih koraka u zaštiti njihovog mentalnog zdravlja.

**Cilj:** Rad ima za cilj ukazivanje na značaj ranog otkrivanja mentalnih poremećaja kod dece na privremenom smeštaju kako bi se dalji stručni rad unapredio i na taj način doprinelo poboljšanju kvaliteta života.

**Metode:** Prikupljanje podataka vršilo se kroz analizu postojeće baze podataka o deci (lični dosije korisnika) koja sadrži informacije o statusu njihovog mentalnog zdravlja. Uzorak čini 313 korisnika Prihvatilišta uzrasta od pet do sedamnaest godina koji su usluge Prihvatilišta koristili u periodu između marta 2019. godine i aprila 2023. godine. Obrada podataka vršila se kroz metode deskriptivne statistike.

**Rezultati:** Prema obrađenim podacima 24,3% korisnika koji su boravili u Prihvatilištu u ispitanom vremenskom periodu imalo je uspostavljenu dijagnozu mentalnih poremećaja. U odnosu na ukupan obrađeni uzorak, 13,4% korisnika je došlo u Prihvatilište sa već uspostavljenom dijagnozom, a kod 10,9% korisnika dijagnoza je uspostavljena tokom boravka u Prihvatilištu.

**Zaključak:** Evidentno je da značajan broj korisnika na privremenom smeštaju ima mentalne poremećaje. U slučaju korisnika koji nemaju identifikovane mentalne poremećaje, značajno je rano prepoznavanje simptoma koji mogu ukazati na njihovo postojanje, o čemu i govori broj korisnika kod kojih je dijagnostikovani mentalni poremećaj tokom trajanja usluge (10,9%). Dijagnostikovanje mentalnih poremećaja kod ovih korisnika vrše relevantni stručnjaci iz oblasti zaštite mentalnog zdravlja dece.

**Ključne reči:** *mentalni poremećaji, rano otkrivanje, stručni rad, deca, privremeni smeštaj*

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## RECOGNITION AND DETECTION OF CHILDREN WITH MENTAL DISORDERS IN TEMPORARY ACCOMMODATION

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**Introduction:** Arriving at the Shelter implies a crisis situation that immediately separates children from their previous environment and causes cutting off ties with it. Considering the complexity of children’s problems, previous negative life events, and placement in the Shelter, with all the specifics of this sensitive age period, recognition and detection of children with mental disorders is very important in planning a professional approach and taking steps to protect their mental health.

**Aim:** The article aims to point out the importance of early detection of mental disorders in children in temporary accommodation to improve professional work and thereby contribute to life quality improvement.

**Method:** Data was collected through the analysis of the existing database on children (user’s personal file), which contains information on their mental health status. The sample consists of 313 Shelter users between the ages of 5 and 17 who used the services of the Shelter in the period between March 2019 and April 2023. Data processing was done through the methods of descriptive statistics.

**Results:** According to the processed data, 24.3% of users who stayed in the Shelter during the examined period had a mental disorder diagnosis. Relative to the total sample size, 13.4% of users came to the Shelter with an established diagnosis, and in 10.9% of users, the diagnosis was established during their placement in the Shelter.

**Conclusion:** Clearly, a significant number of users in temporary accommodation have mental disorders. With the users who do not have identified mental disorders, early recognition of symptoms that may indicate their existence is important, which is shown by the number of users who have been diagnosed with a mental disorder during their stay in the Shelter (10,9%). Diagnosing mental disorders in these users is performed by relevant experts in the field of mental health care.

**Keywords:** *mental disorders, early detection, professional work, children, temporary accommodation*

## POVEZANOST DEFICITA EMPATIJE I PSIHO PATIJE

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**Uvod:** Psihopatija je razvojni poremećaj obeležen emocionalnim deficitima i povećanim rizikom za antisocijalno ponašanje. Psihopatija nije ekvivalentna DSM-IV dijagnozi poremećaja ponašanja ili antisocijalnog poremećaja ličnosti (ASPD) ili njihovim pandanima po kriterijumima ICD-10. Psihijatrijske dijagnoze se fokusiraju na antisocijalno ponašanje, a ne na osnovne uzroke, odnosno disfunkciju emocija koja se vidi kod psihopatije. Empatija je značajna za ostvarivanje prosocijalnog ponašanja, za suzbijanje agresivnosti i razvoj moralnog ponašanja.

**Cilj:** Cilj ovog rada je analiziranje i sumiranje empirijskih podataka o povezanosti deficita empatije i psihopatije.

**Metode:** Istraživanje se bazira na kritičkom pregledu literature. Primenjena je teorijska analiza i sinteza empirijskih nalaza.

**Rezultati:** Analizirani rezultati istraživanja pokazali su da psihopate imaju slabiju sposobnost za generisanje sopstvenih emocija. Kod psihopata se ne javlja strah od kazne, što im omogućava da se upuštaju u kriminalne delatnosti. Psihopate ne identifikuju emocionalne izraze i u većoj meri prave greške kada treba da identifikuju uzroke koji izazivaju strah kod drugih ljudi. Istraživanja nisu saglasna koje emocije su obuhvaćene deficitom, ali najveći broj studija ukazuje da su deficitom najviše obuhvaćene emocije straha i tuge.

**Zaključak:** Pregledom empirijskih istraživanja i teorijskih modela ustanovljeno je da je za nastanak deficita empatije kod psihopata važno sveobuhvatno sagledavanje, koje integriše uticaj porodičnog stila vaspitanja, odnosa majke i deteta, kao i neuroloških deficita u regijama mozga zaduženim za empatiju, ekspresiju i prepoznavanje emocija i moralni razvoj. Deficit empatije kod psihopata deo je njihove kliničke slike, jedan od kriterijuma za postavljanje dijagnoze, ali i mogući uzrok razvoja psihopatskog poremećaja.

**Ključne reči:** *empatija, deficit empatije, psihopatija*

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## THE ASSOCIATION BETWEEN EMPATHY DEFICITS AND PSYCHOPATHY

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**Introduction:** Psychopathy is a developmental disorder characterized by emotional deficits and an increased risk for antisocial behavior. Psychopathy is not equivalent to the DSM-IV diagnosis of conduct disorder or antisocial personality disorder (ASPD) or their counterparts according to ICD-10 criteria. Psychiatric diagnoses focus on antisocial behavior rather than underlying causes, such as emotional dysfunction seen in psychopathy. Empathy is significant for promoting prosocial behavior, suppressing aggression, and developing moral behavior.

**Aim:** The aim of this study is to analyze and summarize empirical data on the association between empathy deficits and psychopathy.

**Method:** The research is based on a critical review of the literature. Theoretical analysis and synthesis of empirical findings were applied.

**Results:** The analyzed research results have shown that psychopaths have a weaker ability to generate their own emotions. Psychopaths do not experience fear of punishment, enabling them to engage in criminal activities. Psychopaths have difficulty identifying emotional expressions and make more errors when identifying causes that induce fear in others. Studies do not agree on which emotions are encompassed by the deficit, but the majority of studies indicate that fear and sadness are the emotions most affected by the deficit.

**Conclusion:** Through the review of empirical research and theoretical models, it has been established that a comprehensive understanding is important for the development of empathy deficits in psychopaths. This includes integrating the influence of parenting styles, mother-child relationships, as well as neurological deficits in brain regions responsible for empathy, expression, and recognition of emotions, and moral development. Empathy deficit in psychopaths is part of their clinical picture, one of the diagnostic criteria, and a possible cause of psychopathic disorder development.

**Keywords:** *empathy, empathy deficit, psychopathy*

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## STARAČKA NAGLUVOST I KOGNITIVNE FUNKCIJE

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**Uvod:** Produženje životnog veka stanovništva dovelo je do visoke prevalencije sensorineuralnog oštećenja sluha kod starije populacije ili presbiakuzije. Oštećenje sluha može da dovode do socijalne izolacije, negativno utiče na kvalitet života, fizičko i mentalno zdravlje, kao i na kognitivne sposobnosti.

**Cilj:** Cilj rada je da se pregledom relevantne literature analiziraju istraživanja koja ispituju uticaj staračke nagluvosti na kognitivne funkcije.

**Metode:** Za pregled savremene literature korišćena je pretraga elektronske baze podataka PubMed-a.

**Rezultati:** Kliničke studije ukazuju na vezu između sensorineuralnog oštećenja sluha i opadanja kognitivnih funkcija kod starijih osoba. Mogući mehanizam ove korelacije može se objasniti neuroanatomskim promenama, psihosocijalnim faktorima, otežanim razumevanjem govora koje utiče na kognitivno funkcionisanje, kao i zajedničkim uzrokom za oba patološka procesa. Socijalna izolacija povećava rizik od kognitivnog pada i razvoja demencije, a upotreba slušnog aparata olakšava društveno angažovanje i na taj način sprečava socijalnu izolaciju. Gubitak sluha u srednjim godinama jedan je od 12 promenljivih faktora koji mogu biti povezani sa povećanim rizikom od razvoja demencije. Istraživanja ukazuju na značaj rane dijagnoze presbiakuzije i primene programa intervencije. Upotreba slušnih aparata i primena kohlearnih implantata dovodi do poboljšanja kognitivnih funkcija, jer se smanjuje kognitivno opterećenje obrade zvuka, povećava se moždana stimulacija i poboljšava društveni angažman.

**Zaključak:** Potrebno je ukazati na potencijalni uticaj sensorineuralnog oštećenja sluha na kognitivne funkcije kod starijih osoba. Rana audiološka dijagnoza, primena slušnih aparata i sprovođenje slušne i govorne rehabilitacije su od suštinskog značaja za poboljšanje kognitivnih sposobnosti i kvaliteta života.

**Ključne reči:** *presbiakuzija, kognitivna funkcija, oštećenje sluha*

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## ELDERLY HEARING LOSS AND COGNITIVE FUNCTIONS

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**Introduction:** The increase in life expectancy has resulted in a high prevalence of sensorineural hearing loss in the elderly population or presbycusis. Hearing impairment can lead to social isolation, having an adverse effect on one’s quality of life, physical and mental health, and cognitive abilities.

**Objective:** The aim of the paper is to review the relevant literature and analyze research that examines the impact of hearing loss in the elderly on cognitive functions.

**Method:** The PubMed tool was used to search the vast database of contemporary research articles.

**Results:** Clinical studies indicate a relation between sensorineural hearing impairment and cognitive decline in the elderly. The potential mechanism behind this correlation can be attributed to neuroanatomical changes, psychosocial factors, difficulty in understanding speech that affects cognitive functioning, as well as to a common cause for both pathological processes. Social isolation increases the risk of cognitive decline and dementia, while the use of a hearing aid promotes social engagement and prevents isolation. Hearing loss in middle age is one of the twelve modifiable factors that may contribute to an increased risk of developing dementia. Research points to the significance of early presbycusis diagnosis and intervention. The utilization of hearing aids and cochlear implants enhances cognitive functions by reducing the cognitive load of sound processing, increasing brain stimulation, and improving social interaction.

**Conclusion:** It is important to emphasize the potential impact of sensorineural hearing impairment on cognitive functions in the elderly. Early audiological diagnosis, the use of hearing aids, and the implementation of hearing and speech rehabilitation are essential for increasing cognitive abilities and improving the quality of life.

**Keywords:** *presbycusis, cognitive function, hearing loss*

OPŠTI REHABILITACIONI KONTEKST  
GENERAL REHABILITATION CONTEXT

## MODELS OF KNOWLEDGE TRANSLATION BETWEEN DISABILITY AND REHABILITATION RESEARCH AND PRACTICE – A REVIEW OF TWO STRATEGIES\*

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**Introduction:** Knowledge translation is the process of synthesizing, disseminating, exchanging, and ethically applying research knowledge to enhance healthcare systems and services.

**Aim:** This literature review examines the field of knowledge translation in disability and rehabilitation research and practice, challenges and barriers to effective knowledge translation and highlights emerging trends and best practices to improve the implementation of evidence-based interventions and practices.

**Method:** Based on the Web of Science citation analysis, two strategies for translating research findings into practice, policy, and education are presented, the “F-words in Childhood Disability” approach and the Participation-focused knowledge translation roadmap.

**Results:** Barriers to effective knowledge translation implementation and emerging trends and best practices to improve the implementation of evidence-based interventions and practices are discussed. Best practices to achieve equitable participation include advocating for rights, promoting policies focused on participation-based services, collaborating between service sectors, supporting families, and building the capacity of young people. To promote the uptake of the “F-words” approach, it is recommended to involve local opinion leaders, share experiences and resources online, integrate the approach into education and workshops, and distribute educational materials.

**Conclusion:** Collaboration between various stakeholders is essential in moving from traditional impairment-based approaches to ecological and biopsychosocial approaches to childhood disability. The future directions are to guide research and practice efforts to bridge the gap between research evidence and practice in disability and rehabilitation and enhance the lives of individuals with disabilities through evidence-based interventions and practices.

**Keywords:** *childhood disability, knowledge implementation, stakeholder engagement, participation, the International Classification of Functioning, Disability and Health*

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## DOBRA VREMENA ZA NEUROPSIHOLOŠKU REHABILITACIJU\*

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**Uvod:** Bez obzira da li je posmatrana u užem ili širem smislu, neuropsihološka rehabilitacija (NR) u svom jezgru sadrži postulat da mora biti zasnovana na poznavanju (i korišćenju) zakonitosti neurokognitivne organizacije. Međutim, rani optimizam vezan za delotvornost ovakvog povezivanja teorije i prakse nije se potvrđivao ni lako, niti po pravilu.

**Cilj:** Namera ovog pregleda je da fokusira glavna čvorišta koja su evoluciju neuropsihološke rehabilitacije usmerila u pravcu danas dominantnih koncepcija i prikaže kako su (ona) indukovala realističnije, činjenično utemeljene i efikasnije postavke tretmana i neurorazvojnih i stečenih kognitivnih poremećaja.

**Metode:** Težište rada je postavljeno na komparativnoj analizi glavnih paradigmi NR u preovlađujućoj literaturi i našoj praksi.

**Rezultati:** Među elementima koji su najviše doprineli izmeni doktrina NR posebno se izdvajaju uticaji akumulacije empirijske evaluacije rehabilitacionih postupaka i provera efikasnosti tretmana metodama funkcionalnog snimanja mozga, najvećim delom obezbeđenih tokom prethodne decenije. Neuropsihološka rehabilitacija kod nas, zasnovana na jasnim teorijskim postavkama od svog začetka (Bojanin, 1979), poseduje visok potencijal za dalji razvoj, u skladu sa najboljim standardima današnje prakse.

**Zaključak:** Teorija (neuro)kognitivne organizacije je neophodan, ali ne i dovoljan preduslov za NR; neuropsihološkoj rehabilitaciji su potrebni funkcionalni modeli samog tretmana, kojih je danas sve više. Sa znanjima koncentrisanim tokom prethodne decenije, vreme u kome se nalazimo izgleda perspektivno u smislu stvarnog dostizanja zrelosti ove oblasti angažovanja.

**Ključne reči:** *neuropsihološka rehabilitacija, činjenično utemeljen tretman, teorijski modeli*

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## NEUROPSYCHOLOGICAL REHABILITATION AS HISTORY IN THE MAKING\*

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**Introduction:** Regardless of whether it is beheld in its broad or narrow sense, neuropsychological rehabilitation (NR) postulates, as a premise, the necessity to be based on knowing (and relying on) commandments of neurocognitive organization. However, the early optimism regarding the productiveness of such an approach hasn't been fulfilled either smoothly or regularly.

**Aim:** The aim of this review is to focus on principal hubs that channeled the evolution of neuropsychological rehabilitation towards current empirically based, realistic, and more convincing approaches to the treatment of both neurodevelopmental and acquired cognitive disturbances.

**Method:** The topic is approached by comparing the main paradigms of NR (as) postulated in predominant literature and our contemporary practice.

**Results:** The main facets directing present shifts in doctrines of neuropsychological rehabilitation ensue from increasing data supply on research-based comparisons of diverse NR methodologies and exploration of treatment effects using neuroimaging techniques, largely accumulated during the previous decade. Neuropsychological rehabilitation in our territory has been grounded on sound theoretical bases from its outset (Bojanin, 1979) and holds true potential for further development in line with modern highest standards.

**Conclusion:** The theory of (neuro)cognitive organization is necessary but not sufficient precondition for NR. Neuropsychological rehabilitation requires functional models of the treatment itself; presently, their share gradually expands. The sum of knowledge enriched during the last decade involves a promise that NR might reach its true maturity in years to come.

**Keywords:** *neuropsychological rehabilitation, evidence-based treatment, theoretical models*

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## STATUS VITAMINA B12 I RAZVOJ DECE I ADOLESCENATA

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**Uvod:** Vitamin B12 ili kobalamin je hidrosolubilni vitamin koji učestvuje u stvaranju kateholamina, dezoksiribonukleinske kiseline, mijelina i u hematopoezi. On je esencijalan faktor u intrauterinom razvoju mozga i mijelinizaciji sve do puberteta, pa i kasnije. Ljudski organizam nema sposobnost sinteze kobalamina, pa je zavistan od unosa ishranom ili supstitucijom.

**Cilj:** Pregled savremene literature o deficijenciji vitamina B12 kod dece i adolescenata, prikaz tipične kliničke slike i diskusija terapijskih pristupa.

**Metode:** Pretraga elektronskih baza podataka u sklopu servisa Konzorcijuma biblioteka Srbije za objedinjenu nabavku (KOBSON) sa ključnim rečima: vitamin B12, kobalamin, deficijencija, deca, adolescenti.

**Rezultati:** Deficit vitamina B12 je čest među decom i omladinom u zemljama u razvoju, ali sve češće i u razvijenim zemljama. Kod dece postoje tri osnovna uzroka deficijencije: 1. smanjen unos, 2. poremećaj resorpcije, 3. urođeni poremećaji transporta i metabolizma. Snižen nivo vitamina B12 u krvi povezan je sa negativnim ishodom trudnoće po majku i dete, podižući rizik za razvojne anomalije, spontani pobačaj, preeklampsiju i nisku težinu deteta na rođenju. Neuropsihološke posledice kod dece su kognitivni poremećaji (smetnje pažnje, pamćenja i sniženje akademskog postignuća), izmene afekta i ponašanja. Nekoliko kohortnih studija pokazalo je povezanost nivoa vitamina B12 u krvi ili zastupljenost u ishrani majke sa kognitivnim ishodima kod dece. Međutim, najveći broj do sada objavljenih studija o negativnom uticaju sniženog nivoa vitamina B12 na kognitivni status dece je opservacionog tipa, te ne mogu potvrditi kauzalnu povezanost. Dijagnoza deficita vitamina B12 zasniva se na kliničkoj slici, neurološkom i psihijatrijskom nalazu, ispitivanju kognicije i laboratorijskoj dijagnostici, koja obuhvata cirkulatorne i funkcionalne biomarkere. Nadoknada deficita kobalamina je podjednako efikasna i parenteralno i oralno, ukoliko se daju adekvatne doze.

**Zaključak:** Nedostatak vitamina B12 je relativno čest među decom i omladinom i dovodi do neuroloških i psihijatrijskih smetnji koje, ako se ne leče, mogu dovesti do ireverzibilnih promena.

**Ključne reči:** *vitamin B12, kobalamin, deficijencija, deca, adolescenti*

## VITAMIN B12 STATUS AND DEVELOPMENT IN CHILDREN AND ADOLESCENTS

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**Introduction:** Vitamin B12, also known as cobalamin, is a water-soluble vitamin that participates in the synthesis of catecholamines, deoxyribonucleic acid, myelin, and hematopoiesis. It is an essential factor in the intrauterine development of the brain and myelination, extending through puberty, and later on in life. The human body lacks the ability to synthesize cobalamin, thus depending on dietary intake or supplementation.

**Aim:** Review of current literature on vitamin B12 deficiency in children and adolescents, typical presentation and therapeutic approach.

**Method:** Literature search via electronic database within the Serbian Library Consortium for Coordinated Acquisition (KOBSON) with keywords: vitamin B12, cobalamin, deficiency, children, adolescents.

**Results:** Vitamin B12 deficiency is common among children and adolescents in developing countries, but it is becoming increasingly prevalent in developed countries as well. In children, there are three main causes of deficiency: 1. Reduced intake, 2. Impaired absorption, 3. Inherited transport and metabolism disorders. Decreased levels of vitamin B12 in the blood are associated with adverse outcomes for both the mother and child during pregnancy, increasing the risk of developmental abnormalities, spontaneous abortion, preeclampsia, and low birth weight. Neuropsychological consequences in children include cognitive disorders (attention deficits, memory impairments, and decreased academic achievement), changes in mood, and behavior. Several cohort studies have shown an association between vitamin B12 levels in the blood or maternal dietary intake and cognitive outcomes in children. However, the majority of published studies on the negative impact of low vitamin B12 levels on the cognitive status of children are observational in nature and cannot confirm a causal relationship. The diagnosis of vitamin B12 deficiency is based on clinical presentation, neurological and psychiatric findings, cognitive testing, and laboratory diagnostics, which include circulating and functional biomarkers. Replenishment of cobalamin deficiency is equally effective via parenteral and oral routes if adequate doses are administered.

**Conclusion:** Vitamin B12 deficiency is relatively common among children and adolescents, and it leads to neurological and psychiatric impairments that, if left untreated, can result in irreversible changes.

**Keywords:** *vitamin B12, cobalamin, deficiency, children, adolescents*

## NEUROPLASTIČNOST KOD OSOBA S NEURORAZVOJNIM POREMEĆAJIMA\*

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**Uvod:** Kritičnim fazama neuroplastičnosti smatraju se periodi u kojima je razvoj funkcionalnih svojstava mozga izrazito modulisan iskustvom, a razdoblje ranog detinjstva se naglašava kao jedan od ključnih činilaca razlika u njenim mehanizmima, koji mogu da utiču na pojavu nekih neurorazvojnih poremećaja.

**Cilj:** Cilj rada je analiza podataka o ustrojstvu neuroplastičnosti kod pojedinih neurorazvojnih poremećaja (intelektualna ometenost, poremećaj iz spektra autizma i poremećaj pažnje s hiperaktivnošću), kao i mogućoj stimulaciji u ovom domenu.

**Metode:** U svrhu ostvarivanja cilja izvršen je pregled literature objavljene u recenziranim akademskim publikacijama.

**Rezultati:** Rezultati niza studija ukazuju na to da se izmenjena neuroplastičnost može smatrati osnovom nekih od ovih poremećaja. Rana intervencija usmerena na facilitaciju mehanizama neuroplastičnosti poboljšava razvojne ishode kod dece s neurorazvojnim poremećajima.

**Zaključak:** Potvrđena je efikasnost više različitih oblika tretmana u ovom domenu, koji podrazumevaju obogaćivanje životne sredine, primenu neinvazivnih stimulativnih protokola i kognitivni trening.

**Ključne reči:** *neuroplastičnost, neurorazvojni poremećaji, intervencije*

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## NEUROPLASTICITY IN PERSONS WITH NEURODEVELOPMENTAL DISORDERS\*

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**Introduction:** Critical phases of neuroplasticity are considered to be periods in which the development of the brain’s functional properties is strongly modulated by experience, and the period of early childhood is emphasized as one of the crucial factors of differences in its mechanisms, which can influence the appearance of some neurodevelopmental disorders.

**Aim:** The aim of the paper is to analyze data on the structure of neuroplasticity in persons with certain neurodevelopmental disorders (intellectual disability, autism spectrum disorder, and attention deficit hyperactivity disorder), as well as on possible stimulation in this domain.

**Methods:** To achieve this goal, a review of the literature published in peer-reviewed academic publications was carried out.

**Results:** Results from a number of studies indicate that altered neuroplasticity may underlie some of these disorders. Early intervention aimed at facilitating neuroplasticity mechanisms improves developmental outcomes in children with neurodevelopmental disorders.

**Conclusion:** Several effective treatments have been confirmed in this domain, including environmental enrichment, application of noninvasive stimulation protocols, and cognitive training.

**Keywords:** *neuroplasticity, neurodevelopmental disorders, interventions*

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## PODRŠKA USVAJANJU SOCIJALNO PRIHVATLJIVIH OBRAZACA PONAŠANJA U CUDV DRAGA

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**Uvod:** U članku je riječ o djeci, adolescentima i odraslim osobama do 26 godina starosti s umjerenim, teškim i veoma teškim intelektualnim teškoćama i dodatnim teškim emocionalnim poremećajima i poremećajima u ponašanju.

**Cilj:** Cilj rada je predstavljanje teorijske osnove, podrške pozitivnog ponašanja, sustavne regulacije područja (pravno, kadrovsko), broja incidenata u 2020. i prijedloga rješenja.

**Rezultati:** U CUDV Draga već dugi niz godina radi se sa djecom, adolescentima i odraslim osobama s težim emocionalnim poremećajima i poremećajima u ponašanju te tražimo i razvijamo različite metode za smanjenje problema u ponašanju s kojima se svakodnevno susrećemo. U ovom radu objašnjava se program pozitivne podrške. Unatoč pozitivnoj podršci u ponašanju, neki su pojedinci još uvijek vrlo opasni za sebe, druge učenike i osoblje. Predlažemo i opisujemo način rada planirane specijalizirane jedinice za djecu i adolescente s težim poremećajima u ponašanju. Osnovni uvjet za smanjenje poremećaja u ponašanju i poboljšanje kvalitete života je dovoljan broj kvalificiranog osoblja, što omogućuje sigurnost, a time i smanjenje medikamentne terapije, minimalno korištenje PVU i provedbu programa Pozitivne podrške.

**Zaključak:** U CUDV Draga svim svojim učenicima, bez obzira na emocionalne poremećaje i poremećaje u ponašanju, želimo osigurati pristojan i kvalitetan život, što je njihovo pravo i naša zajednička dužnost.

**Ključne reči:** *poremećaji ponašanja, poremećaji intelektualnog razvoja, pozitivna podrška u ponašanju*

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## SUPPORT PROGRAM FOR ADOPTING SOCIALLY ACCEPTABLE PATTERNS OF BEHAVIOR AT CUDV DRAGA

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**Introduction:** In this article, we talk about children, adolescents, and adults up to 26 years of age, with moderate, severe, and profound intellectual disabilities and with severe emotional and behavioral disorders.

**Aim:** The aim is to present the theoretical foundations, Positive support program, systemic foundations (legal, staff), the number of incidents in 2020, and suggestions for solutions.

**Results:** At CUDV Draga, we have been working for many years with children, adolescents, and adults with severe emotional and behavioral disorders, and we are using and developing various methods to reduce the behavioral problems we face on a daily basis. We explain the Positive Support program and the methods we use. Despite Positive Behavioral Support, some individuals are still very threatening to themselves, other users, and workers. We propose and describe the functioning of the Specialized Unit for Children and Adolescents with Severe Behavioral Disorders. The basis for reducing behavioral disorders and improving the quality of life is sufficient staff, which enables safety and reduction of medication, minimal use of restrictive measures, and the implementation of the Positive Support program.

**Conclusion:** At CUDV Draga, we want to ensure a decent and quality life for all our users, regardless of emotional and behavioral disorders, which is their right and our common duty.

**Keywords:** *behavioral disorders, intellectual disabilities, positive behavioral support*

JEZIK I KOMUNIKACIJA

LANGUAGE AND COMMUNICATION



## KVALITET GLASA KOD DECE SA SPECIFIČNIM JEZIČKIM POREMEĆAJEM\*

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**Uvod:** Specifični jezički poremećaj (SJP) karakteriše kašnjenje ili atipičan obrazac u razvoju ekspresivnih i/ili receptivnih jezičkih sposobnosti uz odsustvo opšteg kognitivnog deficita, autizma, slušnih oštećenja, socijalnih i emocionalnih poremećaja i teške sredinske deprivacije.

**Cilj:** Cilj ovog istraživanja je utvrđivanje karakteristika kvaliteta glasa i analiza učestalosti nepravilnosti u perceptivnim karakteristikama glasa kod dece sa specifičnim jezičkim poremećajem. Dodatni cilj podrazumevao je utvrđivanje polnih razlika u kvalitetu glasa kod ove dece.

**Metode:** Uzorkom je obuhvaćeno 30 dece sa specifičnim jezičkim poremećajem, uzrasta od tri do devet godina (AS=6,40; SD=1,714), od kojih je 20 dečaka i 10 devojčica. Za procenu kvaliteta glasa korišćena je GRBAS skala.

**Rezultati:** Dobijeni rezultati pokazuju da 36,7% ispitanika ima promuklost i šumnost u glasu, dok je napetost u glasu registrovana kod 46,7% ispitanika. Hrapavost glasa je najmanje zastupljena kod dece sa specifičnim jezičkim poremećajem (30%), dok je najčešća karakteristika kvaliteta glasa bila slabost u glasu (53,3%). Perceptivne promene glasa najčešće su okarakterisane kao promene blagog stepena, potom slede umerene, a najmanje su zastupljene izražene promene glasa. Postoje značajne razlike u stepenu promuklosti i hrapavosti glasa u odnosu na pol u korist dečaka.

**Zaključak:** Iako su kod malog broja dece registrovane teškoće, one imaju značajne naučne i praktične implikacije. Njihova važnost ogleda se u značaju perceptivne procene glasa na ranom uzrastu od strane logopeda, koji poseduje stručne kompetencije za prepoznavanje mogućih smetnji u glasu. Na taj način ostvareni su svi uslovi za zdrav i kvalitetan glas kod dece.

**Ključne reči:** *kvalitet glasa, perceptivna procena glasa, GRBAS skala, specifični jezički poremećaj*

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## VOICE QUALITY IN CHILDREN WITH SPECIFIC LANGUAGE IMPAIRMENT\*

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**Introduction:** Specific language impairment (SLI) is characterized by a delay or abnormality in the development of expressive and/or receptive language skills in the absence of general cognitive deficits, autism, hearing impairments, social and emotional disturbances, and severe environmental deprivation.

**Aim:** The aim of this research was to determine the quality of voice and analysis of the frequency of irregularities in the perceptual characteristics of voice in children with specific language impairment. Also, the goal was to determine possible gender differences in the voice quality of these children.

**Method:** The sample included 30 children with specific language disorders, 3-9 years of age ( $M=6.40$ ;  $SD=1.714$ ), of which 20 were boys and 10 were girls. The GRBAS scale was used to assess voice quality.

**Results:** The results showed that 36.7% of respondents had hoarseness in their voice, while tension in the voice was registered in 46.7% of respondents. Voice hoarseness was the least represented in children with specific language disorders (30%), while the most common voice pathology was voice weakness (53.3%). The most common perceptual voice changes were mild, followed by moderate, and the least pronounced voice changes. There were significant differences in the degree of hoarseness and roughness of voice in relation to gender, more pronounced in boys.

**Conclusion:** Although difficulties were registered in a small number of children, they have significant scientific and practical implications. Their importance is reflected in the importance of perceptual assessment of voice in the early period by a vocal pathologist, who has a trained sensibility for expert recognition of possible voice disturbances. In this way, all possible conditions are met to preserve healthy and high-quality voice in children.

**Keywords:** *voice quality, perceptual evaluation of voice, GRBAS scale, specific language impairment*

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## VERBALNA I NEVERBALNA RADNA MEMORIJA KOD DECE SA RAZVOJNIM JEZIČKIM POREMEĆAJEM EKSPRESIVNOG TIPA – PRELIMINARNO ISTRAŽIVANJE

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**Uvod:** Radna memorija predstavlja kognitivni proces koji se odnosi na održavanje i manipulaciju ograničenog broja informacija tokom kratkog vremenskog perioda, a koji je ključan za funkcionisanje u različitim sferama života jer ima značajnu ulogu u procesiranju jezika. Rezultati prethodnih studija ukazuju na to da deca sa razvojnim jezičkim poremećajem (RJP) imaju manji kapacitet verbalne radne memorije od dece tipičnog jezičkog razvoja istog hronološkog uzrasta, dok nalazi u domenu neverbalne radne memorije nisu tako jednoznačni.

**Cilj:** Ovo istraživanje ima za cilj da utvrdi nivo razvoja verbalne i neverbalne radne memorije kod dece sa RJP ekspresivnog tipa.

**Metode:** Uzorkom je obuhvaćeno 18 ispitanika sa RJP ekspresivnog tipa, uzrasta od pet do devet godina ( $AS = 6,44$ ;  $SD = 1,20$ ), većinom muškog pola (83,3%). Za procenu verbalne radne memorije upotrebljen je zadatak Raspon brojeva unazad, a za procenu neverbalne radne memorije zadatak Izbaci uljeza.

**Rezultati:** Analizom postignuća ispitanika utvrđeno je da je kapacitet verbalne radne memorije značajno veći od kapaciteta neverbalne radne memorije ( $p = 0,008$ ; Cohen's  $d = 0,71$ ). Većina ove dece može sa sigurnošću da zadrži i istovremeno obrađuje dve informacije verbalnog tipa, odnosno jednu informaciju vizuospacijalnog karaktera.

**Zaključak:** Rezultati istraživanja pokazuju da deca sa DLD, pored dobro dokumentovanih deficita verbalne radne memorije, mogu imati teškoće i sa vizuospacijalnim aspektom ove sposobnosti. Pored toga neka deca sa DLD mogu ispoljavati više teškoća na planu neverbalne, u poređenju sa verbalnom radnom memorijom. S obzirom na to da je odnos vizuospacijalnih i jezičkih sposobnosti nedovoljno istražen, buduća istraživanja trebalo bi usmeriti ka proučavanju povezanosti neverbalnog aspekta radne memorije i strukturnih aspekata jezika, a radi boljeg uvida kognitivnih mehanizama u osnovi jezičkog profila koji karakteriše DLD.

**Ključne reči:** *razvojni jezički poremećaj, verbalna radna memorija, neverbalna radna memorija, vizuospacijalne sposobnosti*

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## VERBAL AND NONVERBAL WORKING MEMORY IN CHILDREN WITH EXPRESSIVE TYPE OF DEVELOPMENTAL LANGUAGE DISORDER – A PRELIMINARY RESEARCH

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**Introduction:** Working memory is a cognitive process that involves maintaining and manipulating a limited amount of information over a short period of time, and is crucial for functioning in various spheres of life because it plays a significant role in language processing. Previous studies have shown that children with developmental language disorder (DLD) have a smaller verbal working memory capacity than typically developing peers, while findings in the domain of nonverbal working memory are not as clear.

**Aim:** This study aims to determine the developmental level of verbal and nonverbal working memory in children with expressive-type DLD.

**Method:** The sample included 18 participants with expressive-type DLD, aged 5-9 years ( $M = 6.44$ ;  $SD = 1.20$ ), mostly male (83.3%). The Backward Digit Span task was used to assess verbal working memory, and the Odd-One-Out task was used to assess nonverbal working memory.

**Results:** Analysis of participants' performance revealed that verbal working memory capacity was significantly higher than nonverbal working memory capacity ( $p = 0.008$ ; Cohen's  $d = 0.71$ ). Most of these children can confidently retain and process two pieces of verbal type information or one piece of visuospatial information simultaneously.

**Conclusion:** The results of the study show that children with DLD, in addition to well-documented deficits in verbal working memory, may also have difficulties with the visuospatial aspect of this ability. In addition, some children with DLD may experience more difficulties with nonverbal compared to verbal working memory. Given that the relationship between visuospatial and language abilities is underexplored, future research should focus on studying the association between the nonverbal aspect of working memory and the structural aspects of language, in order to gain better insight into the cognitive mechanisms underlying the language profile that characterizes DLD.

**Keywords:** *developmental language disorder, verbal working memory, nonverbal working memory, visuospatial abilities*

## POREMEĆAJ ČITANJA KOD LEZIJA ANTERIORNIH I POSTERIORNIH OBLASTI MOZGA\*

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**Uvod:** Proces čitanja se ostvaruje uz učešće većeg broja moždanih oblasti koje imaju specifičnu ulogu u realizaciji ove jezičke funkcije. Pokazano je da kvalitativna analiza grešaka i lokalizacija moždane lezije značajno doprinose izboru odgovarajućih metoda tretmana.

**Cilj:** Cilj ovog rada je utvrđivanje značaja neuroanatomskog pristupa analizi poremećaja čitanja u tretmanu aleksije.

**Metode:** Uzorak se sastojao od 30 ispitanika, od kojih je 15 imalo nefluentnu, a 15 fluentnu afaziju. Dijagnoza afazije postavljena je na osnovu Bostonske baterije testova za afazije. U uzorak su uključeni ispitanici sa afazijom vaskularne etiologije kod kojih je magnetnom rezonancom identifikovano mesto lezije. Procena sposobnosti čitanja izvršena je Subtestom čitanja Bostonske baterije testova za afazije i Testom čitanja reči. Statistička značajnost razlika proveravana je Man-Vitnijevim U testom.

**Rezultati:** Rezultati su pokazali da se obrazac poremećaja čitanja kod lezije anteriornih oblasti mozga razlikuje od poremećaja čitanja koji nastaje kao posledica lezije posteriornih oblasti. Statistički značajna razlika ( $p < 0,05$ ) pokazana je na Subtestu čitanja reči (309.000) i rečenica (293.500), kao i na Testu čitanja reči za konkretne imenice (306.000) i apstraktne imenice (288.000), dok za funkcionalne reči i nereči nije pronađena statistička značajnost. Takođe je pokazano da je aleksija izraženija kod lezije posteriornih oblasti mozga.

**Zaključak:** Kvalitativnom analizom dobijenih podataka može se zaključiti da obrazac grešaka u čitanju korelira sa tipom afazičkog sindroma, tj. mestom moždane lezije. Ovaj nalaz ukazuje na potrebu diferenciranog pristupa u tretmanu aleksije.

**Ključne reči:** *aleksija, afazija, neuroanatomski pristup*

\* Rad je proistekao iz projekta „Evaluacija tretmana stečenih poremećaja govora i jezika“, čiju je realizaciju podržalo Ministarstvo nauke, tehnološkog razvoja i inovacija Republike Srbije (ev. broj: 451-03-47/2023-01/ 200096)

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## READING DISORDER IN LESIONS OF ANTERIOR AND POSTERIOR BRAIN AREAS\*

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**Introduction:** The reading process is realized with the participation of a large number of brain areas which have a specific role in the realization of this language function. It has been demonstrated that conducting a qualitative analysis of reading errors and identifying brain lesions can significantly contribute to selecting appropriate treatment methods.

**Aim:** This study aims to determine the importance of using a neuroanatomical approach in analyzing reading disorders in alexia treatment.

**Method:** The sample consisted of 30 participants, with 15 having non-fluent aphasia and 15 having fluent aphasia. The Boston Diagnostic Aphasia Examination was used for the diagnosis of aphasia. The sample included subjects with aphasia of vascular etiology in whom the location of the lesion was identified by magnetic resonance imaging. The Boston Diagnostic Aphasia Examination Reading Subtest and the Word Reading Test were used for reading ability assessment. The Mann-Whitney U-test was used for statistical analysis of the group differences.

**Results:** The results showed that reading disorders resulting from lesions in the anterior areas of the brain differ from those resulting from lesions in the posterior areas. A statistically significant difference ( $p < 0.05$ ) was shown on the Word Reading Subtest (309.000) and sentences (293.500), as well as on the Word Reading Test for concrete nouns (306.000) and abstract nouns (288.000), while no statistical significance was found for functional words and non-words. Additionally, the study found that alexia is more pronounced in cases where the lesion is in the posterior areas of the brain.

**Conclusion:** Upon qualitative analysis of the collected data, it can be concluded that the reading error patterns correlate with the type of aphasic syndrome, i.e., at the location of the brain lesion. This finding highlights the importance of a differentiated approach in the treatment of alexia.

**Keywords:** *alexia, aphasia, neuroanatomical approach*

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## JEZIČKI POREMEĆAJI U DEMENCIJI: OPŠTE I DIFERENCIJALNE KARAKTERISTIKE\*

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**Uvod:** Poznato je da se jezički poremećaji ispoljavaju u demenciji. Međutim, oni još uvek nisu dovoljno specifikovani u odnosu na tip demencije.

**Cilj:** Cilj ovog rada je pregled i bliže određivanje simptoma jezičkog poremećaja kod različitih tipova demencije.

**Metode:** Pretraga literature izvršena je uz pomoć specijalizovanih elektronskih baza podataka, kao i štampanih udžbenika, monografija i zbornika radova.

**Rezultati:** Poremećaji jezika sastavni su deo kliničke slike različitih tipova demencije. Kod Alchajmerove bolesti, primarne progresivne afazije i nekih tipova vaskularne demencije jezički poremećaji ispoljavaju se već u početnim fazama bolesti, te predstavljaju njihov karakterističan simptom. S druge strane, kod Parkinsonove bolesti i demencije Levijevih tela poremećaji jezika javljaju se u kasnijim fazama, sa progrediranjem demencije. Takođe, jezički deficiti kod nekih tipova demencije (Parkinsonova bolest, demencija Levijevih tela) mogu da se jave kao posledica oštećenja drugih kognitivnih funkcija, dok kod pojedinih oblika frontotemporalne demencije (primarna progresivna afazija) oni predstavljaju primarni kognitivni poremećaj.

**Zaključak:** Poznavanje jezičkih poremećaja kod različitih tipova demencije doprinosi bližem određivanju njihove prirode, kao i diferencijalnoj dijagnozi. Dodatno, svest o prisustvu jezičkih poremećaja kod različitih tipova demencije ukazuje na potrebu uključivanja pacijenata sa demencijom u govornu-jezičku i kognitivnu terapiju u cilju poboljšanja kvaliteta života pacijenata i članova njihovih porodica.

**Ključne reči:** *Alchajmerova demencija, vaskularna demencija, demencija Levijevih tela, frontotemporalna demencija, jezički poremećaj*

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\* Rad je proistekao iz projekta „Evaluacija tretmana stečenih poremećaja govora i jezika“, čiju je realizaciju podržalo Ministarstvo nauke, tehnološkog razvoja i inovacija Republike Srbije (ev. broj: 451-03-47/2023-01/ 200096)

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## LANGUAGE DISORDERS IN DEMENTIA: COMMON AND DIFFERENTIAL CHARACTERISTICS\*

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**Introduction:** It is recognized that language difficulties accompany dementia. However, regarding the type of dementia, they are still not sufficiently specific.

**Aim:** This paper aims to review and determine more closely the symptoms of language disorders in different dementia types.

**Method:** Specialized electronic databases, printed textbooks, monographs and collections of papers were all used to search for recent data.

**Results:** Language disorders are an integral part of the clinical picture of different types of dementia. In Alzheimer’s disease, primary progressive aphasia and some cases of vascular dementia, language disorders are manifested already in the initial stages of the disease and represent their characteristic symptom. On the other hand, in Parkinson’s disease and Lewy body dementia, language disorders manifest in the later stages, with the progression of dementia. Additionally, language deficits in some types of dementia (Parkinson’s disease, Lewy body dementia) can occur due to damage to other cognitive functions. In contrast, in certain types of frontotemporal dementia (primary progressive aphasia), language deficits represent a primary cognitive disorder.

**Conclusion:** Understanding language disorders in various dementia types contributes to a closer determination of their nature and differential diagnosis. Furthermore, the awareness that in many types of dementia, language disorders can be present indicates the necessity of including dementia patients in speech-language and cognitive therapy to improve both the patients’ and their family’s quality of life.

**Keywords:** *Alzheimer’s dementia, vascular dementia, Lewy body dementia, frontotemporal dementia, language disorder*

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## BARIJERE U PRIMENI ASISTIVNE TEHNOLOGIJE ZA KOMUNIKACIJU\*

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**Uvod:** Asistivna tehnologija obuhvata širok spektar uređaja, strategija i usluga koji su prilagođeni ili posebno dizajnirani za održavanje ili unapređivanje funkcionalnih sposobnosti korisnika. Upotreba ove tehnologije, posebno dizajnirane za komunikaciju, ima pozitivan uticaj na socijalni i emocionalni razvoj korisnika, uspostavljanje interakcije sa osobama iz neposrednog i šireg okruženja, promene u ponašanju, kao i na povećanje motivacije za učenje, samopouzdanja, radnog i društvenog angažovanja. S obzirom na to postoji potreba da se utvrde, analiziraju i bolje razumeju faktori koji promovišu ili ometaju prihvatanje, integraciju i upotrebu asistivne tehnologije za komunikaciju.

**Cilj:** Cilj ovog rada je da se sistematskim pregledom i analizom relevantnih istraživanja prikažu barijere u primeni asistivne tehnologije za komunikaciju u različitim domenima svakodnevnog života korisnika.

**Metode:** Prilikom uvida u dostupnu literaturu korišćeni su servis Konzorcijuma biblioteka Srbije za objedinjenu nabavku, kao i pretraživači Google Scholar i Research Gate.

**Rezultati:** Rezultati istraživanja pokazuju da na integraciju asistivne tehnologije utiče niz faktora, uključujući one iz socijalne sredine, kao i lične faktore koji se odnose na korisnika. Barijere obuhvataju nedostatak finansijskih sredstava, opreme, negativne stavove, tehnofobiju, kao i neadekvatnu procenu, zbog čega dolazi do neusklađenosti između potreba korisnika i obezbeđenog uređaja asistivne tehnologije. U obrazovnom okruženju identifikovani su nedostatak odgovarajuće obuke, dostupnih alata i resursa, tehničke podrške, vremena za istraživanje i proučavanje načina za integraciju tehnologije u nastavni plan i program, kao i samoefikasnost nastavnog osoblja. Kada su u pitanju barijere proistekle od vršnjaka i samih korisnika, pokazalo se da bi uređaji trebalo da budu jednako privlačni vršnjacima tipičnog razvoja, da njihova upotreba bude lako razumljiva, kao i da ne ugrožava, niti usložnjava socijalno učešće.

**Zaključak:** Procena potreba korisnika, njihovih preferencija i sposobnosti, okruženja u kojima će se tehnologija koristiti, kao i njenih karakteristika, neophodna je za uspešnu integraciju asistivne tehnologije za komunikaciju.

**Ključne reči:** *asistivna tehnologija za komunikaciju, barijere, integracija tehnologije*

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## BARRIERS IN THE APPLICATION OF ASSISTIVE TECHNOLOGY FOR COMMUNICATION\*

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**Introduction:** Assistive technology encompasses a wide range of devices, strategies, and services that are adapted or specifically designed to maintain or improve the user's functional abilities. The use of this technology, specially designed for communication, has a positive impact on the user's social and emotional development, establishing interaction with people from the immediate and wider environment, changes in behavior, as well as increasing motivation for learning, self-confidence, work, and social engagement. In view of this, there is a need to identify, analyze, and better understand the factors that promote or hinder the acceptance, integration, and use of assistive technology for communication.

**Aim:** The aim of this research was to show the barriers in the application of assistive technology for communication in various domains of the user's daily life through a systematic review and analysis of relevant research.

**Method:** The service of the Serbian Library Consortium for Coordinated Acquisition, as well as the Google Scholar and Research Gate search engines, were used to review the available literature.

**Results:** The analysis of the results showed that the integration of assistive technology is influenced by a number of factors, including those from the social environment, as well as personal factors related to the user. Barriers include lack of financial resources, equipment, negative attitudes, technophobia, as well as inadequate assessment, which leads to a mismatch between the needs of the user and the provided assistive technology device. In an educational environment, lack of appropriate training, available tools and resources, technical support, time to research and study ways to integrate technology into the curriculum, and self-efficacy of teachers were identified. When it comes to barriers arising from peers and the users themselves, it was shown that devices should be equally attractive to peers of typical development, that their use should be easy to understand, and that it should not endanger or complicate social participation.

**Conclusion:** Assessing the needs of users, their preferences and abilities, the environment in which the technology will be used, as well as its characteristics, is necessary for the successful integration of assistive technology for communication.

**Keywords:** *assistive technology for communication, barriers, integration of technology*

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POSTER SESIJA  
POSTER SESSION

## MENTORSKA PODRŠKA U USAVRŠAVANJU PRAKTIČARA ZA PORODIČNO ORIJENTISANE RANE INTERVENCIJE: PERCEPCIJA PROFESIONALACA

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**Uvod:** Porodično orijentisane rane intervencije karakteriše pružanje podrške deci (mlađeg uzrasta sa razvojnim odstupanjima, smetnjama, netipičnim ponašanjem, socijalnim i emocionalnim teškoćama) i porodicama u prirodnom okruženju, uz oslanjanje na porodične rutine i jake strane roditelja i dece. Profesionalci se na različite načine mogu usavršavati za sprovođenje porodično orijentisanih ranih intervencija, što se posledično može odraziti na efekte u njihovom radu sa decom i porodicama. Mentorska podrška smatra se poželjnim oblikom profesionalnog usavršavanja praktičara.

**Cilj:** Cilj ovog istraživanja je da se utvrdi kako članovi timova za porodično orijentisane rane intervencije percipiraju veštine mentora koji su ih podržavali, kao i kako mentori sagledavaju svoje kompetencije.

**Metode:** Učešće u istraživanju uzelo je osam mentora i 70 članova timova za porodično orijentisane rane intervencije iz Republike Srbije. U ovom istraživanju korišćena su dva instrumenta – Upitnik za procenu mentora i Upitnik za samoevaluaciju mentora (AOMP, 2016).

**Rezultati i zaključak:** Preko 88% članova timova za porodično orijentisane rane intervencije saglasno je da su njihovi mentori pokazali empatiju, da su ih podsticali na dublja razmišljanja, delili svoja iskustva, obezbeđivali poverljiv odnos i da su pokazivali poštovanje, pružajući im pomoć kada je to potrebno. Dodatno, članovi timova istakli su da im je ova podrška bila jako korisna i da je neophodno da se ona planira i u daljem radu. S druge strane, i mentori su kod sebe detektovali iste one vrednosti koje su prepoznali profesionalci koje su podržavali. Dodatno, istakli su i veštine koje je potrebno još da unapređuju. Ovi nalazi su značajni za kreatora politika, koji bi pri planiranju raspodele resursa u oblasti ranog razvoja mogli da uvrste i mentorsku podršku kao oblik obaveznog profesionalnog razvoja.

**Ključne reči:** *mentori u specijalnoj edukaciji i rehabilitaciji, porodično orijentisane rane intervencije, profesionalni razvoj praktičara specijalne edukacije i rehabilitacije*

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## MENTORING SUPPORT IN THE IMPLEMENTATION PROCESS OF FAMILY-ORIENTED EARLY INTERVENTIONS: PERCEPTIONS OF PROFESSIONALS

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**Introduction:** Family-oriented early interventions are characterized by supporting children (younger age with developmental disabilities, atypical behavior, social and emotional difficulties) and families in a natural environment, relying on family routines and the strengths of parents and children. Professionals can be trained in various ways to carry out family-oriented early interventions, which can consequently be reflected in the effects of their work with children and families. Mentoring support is considered a desirable form of professional development for practitioners.

**Aim:** This research aims to determine how members of family-oriented early intervention teams perceive the skills of the mentors who supported them and how mentors perceive their competencies.

**Method:** Eight mentors and 70 members of family-oriented early intervention teams from the Republic of Serbia participated in the research. In this research, two instruments were used – A mentor assessment questionnaire and A questionnaire for the self-evaluation of mentors (AOMP, 2016).

**Results and conclusion:** Over 88% of family-oriented early intervention team members agree that their mentors showed empathy, encouraged them to think deeper, shared their experiences, secured a confidential relationship, and showed respect, helping them when needed. In addition, members of the teams pointed out that this support was beneficial to them and that it is necessary to plan it in further work. On the other hand, mentors also detected in themselves the same values that were recognized by the professionals they supported. In addition, they highlighted those skills that need to be improved. These findings are significant for policy makers who, when planning the allocation of resources in the field of early development, could include mentoring support as a form of mandatory professional development.

**Keywords:** *mentors in special education and rehabilitation, family-oriented early interventions, professional development of practitioners of special education and rehabilitation*

## PREDNOSTI I NEDOSTACI RADA NA DALJINU – PERCEPCIJA STRUČNJAKA

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**Uvod:** Rad na daljinu može pomoći da se poveća pristup uslugama intervencije u ranom detinjstvu, posebno za porodice koje žive u udaljenim područjima ili u mestima gde ne postoje stručnjaci i timovi koji mogu da pruže ove usluge.

**Cilj:** Cilj ovog istraživanja je ispitati koje prednosti i nedostatke rada na daljinu u pružanju usluga rane intervencije navode stručnjaci koji pružaju podršku porodicama.

**Metode:** Uzorak je činilo 43 stručnjaka koji su prošli obuku za pružanje podrške u okviru porodično orijentisane rane intervencije. Učesnici su anonimno popunjavali onlajn upitnik Skala prednosti i nedostataka rada na daljinu, koja je pored osnovnih podataka o polu i učestalosti rada na daljinu sadržala 14 pitanja koja su se odnosila na prednosti i nedostatke rada na daljinu.

**Rezultati i zaključak:** Stručnjaci navode da prilikom rada na daljinu najveće prednosti vide u većoj dostupnosti porodicama, boljoj ekonomičnosti u pružanju usluga, kao i većoj fleksibilnosti, zadovoljni su saradnjom sa porodicama, kao i sa kolegama. Kao nedostatke navode probleme sa ovladavanjem tehnologijama, dostupnost tehnologija, odsustvo direktnog kontakta sa kolegama, kao i nedostatak informacija od kolega.

**Ključne reči:** *rana intervencija, rad na daljinu, stručnjaci*

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## ADVANTAGES AND DISADVANTAGES OF TELEWORKING – PERCEPTION OF EXPERTS

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**Introduction:** Teleworking can help increase access to early childhood intervention services, especially for families living in remote areas or where no professionals and teams can provide these services.

**Aim:** This research aims to examine what advantages and disadvantages of teleworking in providing early intervention services cited by experts who support families.

**Method:** The sample consisted of 43 professionals who received training to provide support within the framework of family-oriented early intervention. Participants anonymously filled out the online questionnaire – “Scale of advantages and disadvantages of remote work”, which, in addition to fundamental data on gender and frequency of teleworking, contained 14 questions related to the advantages and disadvantages of remote work.

**Results:** Experts state that when working remotely, they see the most significant advantages in greater accessibility to families, a better economy in providing services, and greater flexibility; they are satisfied with the cooperation with families and colleagues. They cite problems with mastery of technologies, the availability of technologies, the absence of direct contact with colleagues, and the need for more information from colleagues.

**Keywords:** *early intervention, teleworking, experts*

## DIGITALNO NASILJE KOD MLADIH OSOBA SA OŠTEĆENJEM VIDA

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**Uvod:** Digitalna pismenost predstavlja skup znanja i veština vezanih za upotrebu digitalnih tehnologija. To je sposobnost da se pronađu, analiziraju i prenesu informacije različitog digitalnog formata, uz poštovanje pravila zastupljenih u digitalnom prostoru. Digitalne tehnologije omogućuju osobama sa oštećenjem vida unapređenje kvaliteta života kroz olakšan pristup velikom broju informacija i edukativnih sadržaja, a posebno se ističe mogućnost održavanja socijalnih interakcija na daljinu. Kako bi osobe sa oštećenjem vida bezbedno koristile digitalne tehnologije, neophodno je da budu digitalno pismene i da poštuju pravila ponašanja u digitalnom prostoru da bi zaštitile sebe i druge od digitalnog nasilja.

**Cilj:** Digitalno nasilje predstavlja korišćenje digitalnih tehnologija sa namerom da se neka osoba povredi, ponizi, uznemiri, ili da joj se nanese šteta. Može se ispoljiti u obliku pretnji, uznemiravanja, ucenjivanja, sajberbuling-a, pornografije, prevara putem interneta itd.

**Rezultati:** Do nastanka digitalnog nasilja pre svega dovodi digitalna nepismenost, a žrtve su neretko deca, mladi i osobe iz ranjivih populacija. Mladi sa oštećenjem vida uglavnom su izloženi digitalnom nasilju u vidu verbalnog vređanja, ponižavanja, zadirkivanja, kao i kroz nezahtevano deljenje linkova pornografskih sadržaja, uznemiravanje i propagiranje agresije, dok je fizičko nasilje u ovom kontekstu retko. Istraživanja pokazuju da digitalno nasilje doživljavaju najčešće mlade osobe sa oštećenjem vida ženskog pola, pa se kao posledično stanje primećuje prisustvo neprijateljskog stava prema okolini, povučenost, a neretko su zastupljeni i simptomi anksioznosti, depresije, opsesivnih poremećaja, koji mogu dovesti do težih patoloških stanja. Do digitalne nepismenosti često dovodi brzi razvoj i unapređenje digitalnih tehnologija, pa mladi sa oštećenjem vida imaju poteškoća u njihovom savladavanju, što za posledicu ima nastanak tzv. „digitalnog jaza” ili nemogućnost korišćenja računara, računarskih mreža i platformi.

**Zaključak:** Kao prevencija nastanka digitalnog nasilja predlaže se uvođenje digitalnog opismenjavanja kroz formalno obrazovanje, jer se tako razvija kreativno i kritičko mišljenje, kao i sposobnost rešavanja potencijalnih problema u digitalnom prostoru.

**Ključne reči:** *digitalna pismenost, digitalno nasilje, osobe sa oštećenjem vida, prevencija digitalnog nasilja*

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## DIGITAL VIOLENCE AMONG YOUNG PEOPLE WITH VISUAL IMPAIRMENT

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**Introduction:** Digital literacy is a set of knowledge and skills related to the use of digital technologies. It is the ability to find, analyze and transmit information in different digital formats, while respecting the rules represented in the digital space. Digital technologies provide people with impaired vision with better quality of life through easier access to a lot of information and educational content. Furthermore, the possibility of maintaining social interactions at a distance is particularly noteworthy. In order for people with visual impairments to use digital technologies safely, it is necessary for them to be digitally literate and to follow the rules of behavior in the digital space in order to protect themselves and others from digital violence.

**Aim:** Digital violence is the use of digital technologies with the intent to injure, humiliate, upset, or harm a person. Forms of digital violence can be in the form of threats, harassment, blackmail, cyberbullying, pornography, online scams, etc.

**Results:** The emergence of digital violence is primarily caused by digital illiteracy, and the victims are often children, young people, and people from vulnerable groups. Young people with visual impairment are mostly exposed to digital violence in the form of verbal insults, humiliation, teasing, as well as through unsolicited sharing of links to pornographic content, harassment, and propagation of aggression, while physical violence in this context is rare. Research shows that digital violence is most often experienced by young girls with visual impairment. As a result, the presence of a hostile attitude towards the environment, withdrawal, and symptoms of anxiety, depression, and obsessive disorders that can lead to more serious pathological conditions are observed. The rapid development and improvement of digital technologies often lead to digital illiteracy, so young people with visual impairments have difficulties in mastering them, which results in the emergence of the so-called “digital divide” or the inability to use computers, computer networks, and platforms.

**Conclusion:** As prevention of the emergence of digital violence, it is suggested to introduce digital literacy through formal education, because this is how creative and critical thinking develops, as well as the ability to solve potential problems in the digital space.

**Keywords:** *digital literacy, digital violence, visually impaired people, prevention of digital violence*

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## UTJECAJ STIGMATIZACIJE NA DOŽIVLJAJ SEBE U OSOBA S MOTORIČKIM POREMEĆAJIMA

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**Uvod:** Stigmatizacija uključuje negativne stavove, stereotipe i predrasude društva prema osobama koje se doživljavaju kao „drugačije” i „neadekvatne”, što se može nepovoljno odraziti na njihov doživljaj sebe, akademska postignuća, mogućnosti zaposlenja i drugo. Imajući u vidu da se stigmatizacija temelji na dvostrukom odnosu između promatrača i stigmatizirane osobe, u razmatranju ovog međuodnosa potrebno je obratiti pažnju na: (1) percepciju i ponašanje ljudi prema stigmatiziranim osobama i (2) kako stigmatizirani pojedinci reagiraju na diskriminaciju i isključenje. Posebno osjetljivu skupinu predstavljaju osobe s motoričkim poremećajima, koje zbog nestandardnog izgleda tijela i/ili funkcionalnih ograničenja, mogu u promatraču izazvati različite negativne reakcije, među kojima značajno mjesto može zauzeti stigmatizacija. Daljnja posljedica takvih tuđih reakcija može biti i samostigmatizacija, koja se definira kao proces u kojem osoba, internalizacijom stereotipa prisutnih u društvu, gubi dijelove svog identiteta te prihvaća negativne stavove i uvjerenja o sebi.

**Cilj:** S obzirom na to da je stigmatizacija i dalje često prisutna u današnjem društvu definiran je cilj ovog rada, koji se odnosio na razmatranje uzroka, posljedica i moguće načine njene prevencije.

**Metode:** U svrhu istraživanja proveden je pregled recentnih znanstvenih radova dostupnih u bazama časopisa, kao što su Hrčak, Scopus, Google Scholar, Research Gate itd.

**Rezultati:** Dobiveni rezultati su pokazali da su uzroci stigmatizacije raznoliki, ali da su najčešće rezultat neznanja i neinformiranosti. Nadalje, među brojnim posljedicama kod stigmatiziranih osoba ističu se sram, krivnja i snižen osjećaj vlastite vrijednosti.

**Zaključak:** Navedene spoznaje naglašavaju važnost provedbe interdisciplinarnih protokola u cilju promjene stavova javnosti, kao i osnaživanje stigmatiziranih osoba kroz različite (psih)edukacije, radionice, savjetovanje i grupe podrške.

**Ključne reči:** *stigmatizacija, samostigmatizacija, motorički poremećaji, doživljaj sebe*

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## THE INFLUENCE OF STIGMATIZATION ON SELF-EXPERIENCE IN PERSONS WITH MOTOR DISORDERS

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**Introduction:** Stigma encompasses negative attitudes, stereotypes, and prejudices held by society toward people who are perceived as “different” and “inadequate,” which can negatively impact their self-experience, academic achievements, employment opportunities, etc. Bearing in mind that stigmatization is based on a dual relationship between the observer and the stigmatized person, in considering this interrelationship, it is necessary to pay attention to: (1) people’s perceptions and behaviors toward stigmatized people and (2) how stigmatized people respond to discrimination and exclusion. A particularly vulnerable group is persons with motor disorders, whose atypical physical appearance and/or functional limitations may elicit various negative reactions from observers, among which stigmatization can take a significant place. Another consequence of such external reactions can be self-stigmatization, which is defined as a process in which individuals lose parts of their identity and accept negative attitudes and beliefs about themselves due to the internalization of stereotypes present in society.

**Aim:** Considering that stigmatization is still common today, the aim of this paper was to investigate its causes, consequences, and possible ways to prevent it.

**Method:** For the purpose of research, recent scientific papers available in databases such as Hrčak, Scopus, Google Scholar, Research Gate, etc., were reviewed.

**Results:** The obtained results show that the causes of stigmatization are diverse, but that they are most often due to ignorance and lack of information. Also, stigmatized individuals emphasize shame, guilt, and decreased self-esteem among the many consequences.

**Conclusion:** The findings also highlight the importance of implementing interdisciplinary protocols in order to change public attitudes as well as empowering stigmatized individuals through various (psycho) education, workshops, counseling, and support groups.

**Keywords:** *stigmatization, self-stigmatization, motor disorders, self-experience*

## ISHODI PROCENE FUNKCIONALNOG VIDA

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**Uvod:** Funkcionalni vid podrazumeva kvalitet vizuelnog opažanja u raznovrsnim okruženjima karakterističnim za obavljanje različitih aktivnosti, poput čitanja, poslova u domaćinstvu, samostalnog kretanja ili uživanja u filmu, pozorišnoj predstavi, sportskom takmičenju, TV programu. On zavisi od umešnosti korišćenja vidnih funkcija, ali i od motivacije, vizuelnog iskustva i drugih psiholoških i socijalnih činilaca. Ispitivanje funkcionalnog vida predstavlja način za dobijanje informacija o tome kako i u kojoj meri pojedinac sa oštećenjem vida koristi preostali vid za obavljanje svakodnevnih aktivnosti.

**Cilj:** Cilj ovog rada je da ukaže na osnovne karakteristike procene funkcionalnog vida, tj. na njene komponente i ishode, ali i na izazove s kojima se suočavaju stručnjaci prilikom njenog sprovođenja.

**Metode:** Pretragom elektronskih baza Kobson i Google Scholar izvršena je analiza literature, uz pomoć sledećih ključnih reči: funkcionalni vid, procena, ishodi, izazovi.

**Rezultati:** Složenost procedure ispitivanja funkcionalnog vida ogleda se u tome što, pored pregledanja medicinskih i oftalmoloških izveštaja, podrazumeva i dve grupe merenja: formalna (ispitivanje vidne oštine, širine vidnog polja, kolornog vida, kontrastne osetljivosti, motiliteta) i neformalna (opservacija tokom obavljanja svakodnevnih aktivnosti, kao i prikupljanje informacija putem intervjua). Sprovođenje procene funkcionalnog vida i interpretacija dobijenih rezultata najčešće je odgovornost stručnjaka iz oblasti oštećenja vida, tj. specijalnih edukatora i rehabilitatora lica s oštećenjem vida.

**Zaključak:** Njen značaj ogleda se u tome što pruža smernice za korišćenje odgovarajućih metoda koje pospešuju upotrebu vida u obavljanju svakodnevnih zadataka, obrazovni program za učenike i profesionalnu orijentaciju za odrasle. Rečju, daje osnovu obrazovnim i rehabilitacionim servisima.

**Ključne reči:** *oštećenje vida, funkcionalni vid, procena, ishodi, izazovi*

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## RESULTS OF THE FUNCTIONAL VISION ASSESSMENT

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**Introduction:** Functional vision refers to the quality of visual perception in various environments, which is essential for performing a range of activities such as reading, household chores, independent mobility, and enjoying media like movies, theater performances, sports competitions, or TV programs. It relies not only on the ability to utilize visual functions but also on factors such as motivation, visual experience, and other psychological and social aspects. A functional vision assessment (FVA) serves as a means to gather information about how an individual with visual impairment utilizes their remaining vision in everyday life activities.

**Aim:** This paper aims to outline the fundamental characteristics of FVA, including its components and expected outcomes, as well as the challenges faced by experts in its implementation.

**Method:** The literature analysis was performed by searching electronic databases Kobson and Google Scholar, and the following key words and their combinations were used: functional vision, assessment, results, assessment challenges.

**Results:** Conducting an FVA involves a comprehensive evaluation that encompasses not only the examination of medical and ophthalmological reports but also two distinct sets of measurements: formal assessments (including visual acuity, visual field, color vision, contrast sensitivity, and motility) and informal observations (such as observing daily activities and conducting interviews). The completion of an FVA and the interpretation of the results are typically carried out by experts specializing in visual impairment, such as special educators and rehabilitators for visually impaired individuals.

**Conclusion:** The significance of FVA lies in its provision of guidelines for employing appropriate methods that facilitate the use of vision in daily tasks, educational programs for students, and professional guidance for adults. In short, it serves as the foundation for educational and rehabilitation services.

**Keywords:** *visual impairment, functional vision, assessment, results, assessment challenges*

## PARENTS' PERCEPTION ABOUT THE ROLE OF PERSONAL ASSISTANTS FOR CHILDREN WITH DEVELOPMENTAL DISABILITIES

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**Introduction:** By exercising the right to a personal assistant, direct support is provided to the child, enabling him or her to be as autonomous as possible in fulfilling his or her personal needs, activities, and obligations.

**Aim:** The aim of this descriptive study was to examine parents' perception on the role of personal assistants, the areas in which the service of personal assistants is most prevalent, as well as areas that are important for the development of children with disabilities, for which there is no support in our educational system.

**Method:** The sample consisted of parents of 104 elementary and high school pupils aged 7 to 15 from the territory of southeastern Serbia. The adapted questionnaire consisted of 28 questions related to the satisfaction of parents of children with developmental disabilities with the participation of personal assistants was used.

**Results:** The results of this study showed that the support of a personal assistant is most prevalent in the area of movement, 88.4%, maintaining personal hygiene, 58.7%, while 52.9% of pupils needed support in communicating with the teacher and peers. According to the parents' perception, the largest number of pupils with developmental disabilities with the support of personal assistants achieved better socialization, 76.9%. Furthermore, they corrected undesirable forms of behavior, 40.4%. All the parents stated that support is necessary in learning and solving everyday tasks in class, as well as help with homework. In addition, 82,7% of the parents stated that they need daily help in studying after classes and help in learning at home.

**Conclusion:** Parents expressed their satisfaction with the support of personal assistants, however, they also indicate the need to expand the competences of personal assistants, so therefore, attention should be focused on their education and permanent engagement in the school.

**Keywords:** *parents perception, children with developmental disabilities, personal assistant, technical assistance, inclusion*

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## SENZORNI INTEGRATIVNI PRISTUP: SISTEMSKI PREGLED EFIKASNOSTI INTERVENCIJA USMERENIH NA DECU

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**Uvod:** Teorija senzorne integracije koju je predložila Džin Ers predstavlja kamen temeljac raznovrsnim i, u današnje vreme, sve mnogobrojnijim intervencijama usmerenim na decu sa teškoćama senzornog procesiranja. Počevši od sedamdesetih godina kada je teorija postavljena, senzorna integrativna disfunkcija sve se češće uočava kod dece tipične populacije i dece sa smetnjama u razvoju, pri čemu je najuočljivija i najčešće opisivana kod dece sa poremećajem iz spektra autizma. Ove teškoće značajno negativno utiču na neurološki, motorni i govorno-jezički razvoj dece, na mogućnost komunikacije, socijalizacije i usvajanja adaptivnih veština. To je uslovalo razvoj različitih intervencija koje se sprovode u cilju ublažavanja ili eliminisanja teškoća senzornog procesiranja. Međutim, nisu sve intervencije usklađene sa principima teorije Džin Ers i njihova efikasnost nije u adekvatnoj meri ispitana.

**Cilj:** Cilj ovog rada je da se analiziraju i opišu rezultati istraživanja koja se bave evaluacijom efikasnosti različitih intervencija zasnovanih na senzornom pristupu.

**Metode:** Pretraživanje literature u skladu sa odabranim ključnim rečima izvršeno je uz pomoć servisa Konzorcijuma biblioteka Srbije za objedinjenu nabavku i pretraživača Google Scholar.

**Rezultati:** Nastojali smo da u izbor uključimo istraživanja koja se bave novijim i nedovoljno istraženim senzornim intervencijama za decu tipičnog razvoja i decu sa poremećajem iz spektra autizma. Istraživanja koja su ušla u konačan izbor pružaju interesantne i relevantne informacije o efikasnosti senzornog pristupa u intervencijama usmerenim na probleme hranjenja i ishrane, spavanja, emocionalno-bihevioralnih i kognitivnih teškoća dece sa teškoćama senzornog procesiranja.

**Zaključak:** Na osnovu pregleda dosadašnje literature možemo zaključiti da intervencije zasnovane na senzornom pristupu imaju pozitivne efekte na različite domene funkcionisanja dece TR i dece sa PSA. Takođe, da nisu sve intervencije podjednako efikasne, niti imaju pozitivne efekte na različite domene života.

**Ključne reči:** *senzorna integracija, intervencije zasnovane na senzornom pristupu, efikasnost intervencija, deca sa poremećajem iz spektra autizma, deca tipičnog razvoja*

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## SENSORY INTEGRATIVE APPROACH: A SYSTEMATIC REVIEW OF THE EFFECTIVENESS OF CHILD-CENTERED INTERVENTIONS

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**Introduction:** The theory of Sensory Integration proposed by Jean Ayres represents the cornerstone of various and, nowadays, more and more numerous interventions aimed at children with sensory processing difficulties. Beginning in the 1970s, when the theory was established, sensory integrative dysfunction is increasingly observed in children of the typical population and children with developmental disabilities, and is more noticeable and most often described in children with autism spectrum disorders. These difficulties significantly negatively affect the neurological, motor and speech-language development of children, the ability to communicate, socialize and adopt adaptive skills. This has led to the development of various interventions that are carried out with the aim of mitigating or eliminating the difficulties of sensory processing. However, not all interventions are in line with the principles of Jean Ayres theory and their effectiveness has not been adequately evaluated.

**Aim:** The aim of this paper is to analyze and describe the results of research that evaluates the effectiveness of various interventions based on the sensory approach.

**Method:** The literature search in accordance with the selected keywords was performed with the help of the service of the Serbian Library Consortium for Unified Procurement (KOBSON) and the Google Scholar search engine.

**Results:** We tried to include research that deals with newer and insufficiently researched sensory interventions for children with typical development and children with autism spectrum disorder. The final research provides interesting and relevant information on the effectiveness of sensory access in interventions focused on the problems of feeding and nutrition, sleep, emotional-behavioral and cognitive difficulties of children with sensory processing difficulties.

**Conclusion:** Based on the review of previous literature, we can conclude that interventions based on the sensory approach have positive effects on different domains of functioning of typically developed children and children with autism spectrum disorder. We can also conclude that not all interventions are equally effective or have positive effects on different domains of life.

**Keywords:** *sensory integration, interventions based on sensory approach, effectiveness of interventions, children with autism spectrum disorder, typical developing children*



## KONZERVACIJA BROJA KOD DECE PREDŠKOLSKOG UZRASTA\*

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**Uvod:** U periodu između četvrte i šeste godine, u procesu zaključivanja kod dece obično se javlja dilema zasnovana na različitim tipovima analize informacija (perceptivnom ili konceptualnom). Da bi se ona prevazišla, neophodna je reverzibilnost mišljenja, koja zaključivanje oslobađa upliva perceptivnih svojstava.

**Cilj:** S obzirom na činjenicu da se utvrđeni razvojni miljokazi mogu razlikovati od generacije do generacije, cilj ovog rada je da se utvrdi dinamika razvoja konzervacije broja kod dece predškolskog uzrasta.

**Metode:** Uzorkom je obuhvaćeno sedamdeset petoro dece tipičnog razvoja, uzrasta 4–6,11 godina ( $AS=5,05$ ;  $SD=0,81$ ). Čine ga 39 (52%) dečaka i 36 (48%) devojčica, podeljenih u tri jednake uzrasne grupe, ujednačene prema polu ( $p=0,852$ ). Konzervacija broja procenjena je zadatkom korespondencije, u kome se od ispitanika očekuje da potvrdi istovetnost dveju kolekcija nezavisno od promena njihovih prostornih relacija. U statističkoj obradi podataka korišćeni su Spirmanov koeficijent korelacije i  $\chi^2$  test.

**Rezultati:** Prema dobijenim rezultatima, odgovori zasnovani na numeričkoj korespondenciji javljaju se samo kod šestogodišnjaka (44%), dok je dominacija vizuelne korespondencije prisutna kod 84% četvorogodišnjaka, 76% petogodišnjaka i 48% šestogodišnjaka. Globalna prostorna korespondencija javlja se kod 16% četvorogodišnjaka, 24% petogodišnjaka i 8% šestogodišnjaka. Utvrđena je značajna korelacija konzervacije broja s uzrastom ( $p=0,001$ ), a primenom  $\chi^2$  testa i značajan odnos uzrasnih kategorija i odgovora na zadatku korespondencije ( $p\leq 0,000$ ).

**Zaključak:** Sumirajući rezultate može se zaključiti da većina ispitanika predškolskog uzrasta podleže konfliktu ikoničke i simboličke reprezentacije, pri čemu kod mlađe dece dominira ikonička reprezentacija, a simbolička se razvija postepeno i često je podložna uticaju perceptivnih mehanizama.

**Ključne reči:** *konzervacija broja, korespondencija, predškolski uzrast*

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## CONSERVATION OF NUMBER IN PRESCHOOL CHILDREN\*

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**Introduction:** During the period between 4 and 6 years of age, children often encounter a dilemma in their reasoning process, which stems from the analysis of various types of information, whether perceptual or conceptual. To resolve this dilemma, the reversibility of thought becomes essential, as it allows the conclusions to be detached from the influence of perceptual properties.

**Aim:** Taking into consideration the potential variation of established developmental milestones across different generations, the aim of this research was to investigate the developmental dynamics of number conservation in preschool-aged children.

**Method:** The sample consisted of 75 children with typical development, ranging in age from 4 to 6.11 years ( $M=5.05$ ;  $SD=0.81$ ). It included 39 (52%) boys and 36 (48%) girls, divided into three equally-sized age groups with a balanced representation of both sexes ( $p=0.852$ ). Conservation of number was assessed using a correspondence task, where the participant was required to determine the equivalence of two sets regardless of any changes in their spatial arrangement. Spearman's correlation coefficient and the  $\chi^2$  test were employed for statistical data analysis.

**Results:** Based on the results obtained, responses indicating numerical correspondence were observed only in six-year-olds (44%), whereas visual correspondence predominated in 84% of four-year-olds, 76% of five-year-olds, and 48% of six-year-olds. Global spatial correspondence was observed in 16% of four-year-olds, 24% of five-year-olds, and 8% of six-year-olds. A significant correlation between the conservation of number and age was identified ( $p=0.001$ ). Furthermore, the  $\chi^2$  test revealed a significant association between age categories and responses to the correspondence task ( $p\leq 0,000$ ).

**Conclusion:** In summary, the results indicate that a significant number of preschoolers experience a conflict between iconic and symbolic representation. Iconic representation tends to dominate in younger children, while symbolic representation develops gradually but is often influenced by perceptual mechanisms.

**Keywords:** *conservation of number, correspondence, preschool children*

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## ZNAKOVNA POEZIJA\*

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**Uvod:** Poezija je oduvek percipirana kao umetnost koja se stvara u pisanoj, a izražava u vokalnoj formi putem recitovanja. Za mnoge kritičare i ljubitelje poezije 19. veka ona predstavlja ritmičku i vibrantnu sintezu koja se ogleda u izražajnom glasanju koje je oplemenjeno pokretima i facijalnom ekspresijom, sadrži muzičke elemente u vidu različitih modusa metra, ritma i rime koji je oplemenjuju, čine multidimenzionalnom, ekspresivnom i prefinjenom. Generacije stručnjaka su smatrale da je stvaranje poezije dar ili talenat koji nije dostupan gluvim i naglulim osobama.

**Cilj:** Cilj ovog rada je da ukaže na istorijske i sociokulturne okvire, specifičnosti, poteškoće i doprinos savremene tehnologije u izražavanju znakovne poezije gluvih osoba.

**Metode:** Primenjene metode su uporedna analiza, evaluacija i sistem dedukcije i indukcije u razmatranju dostupne literature.

**Rezultati:** Znakovna poezija je veoma dugo imala neformalni karakter i izvodila se u zajednici gluvih na zabavama, skupovima i druženjima. Mnogi naučnici, kritičari, nisu ni pomišljali da gluve osobe mogu stvarati poeziju, biti pesnici. Međutim, Džon Karlin (John Carlin, 1813–1891), iako kongenitalno gluva osoba, bio je veoma talentovan pesnik, pisac i slikar. Njegovim savremenikima je ta činjenica bila iznenađenje i izazivala je nevericu. Zahvaljujući njegovom primeru, i oni i njihovi naslednici shvatili su da gluvoća ne ograničava mogućnosti za bavljenje ovim vidom umetnosti. Znakovna poezija je vizuelna umetnička forma koja postaje sve aktuelnija u zajednici gluvih i čujućih osoba. Iako nije imala istu istoriju i institucionalnu podršku u različitim državama sveta, znakovna poezija izaziva sve veće interesovanje, finansijsku podršku i priznanje, pre svega zahvaljujući razvoju tehnologije.

**Zaključak:** Savremeni svet predstavlja idealan okvir za razvoj i afirmaciju znakovne poezije. Danas gluvi pesnici snimaju svoju znakovnu poeziju ili prevode poeziju drugih autora na znakovni jezik, tako da su video snimci dostupni i prilagođeni široj javnosti.

**Ključne reči:** *znakovna poezija, gluvi pesnici, istorija, savremena tehnologija*

\* Rad je proistekao iz projekta „Kreiranje Protokola za procenu edukativnih potencijala dece sa smetnjama u razvoju kao kriterijuma za izradu individualnih obrazovnih programa“, čiju je realizaciju podržalo Ministarstvo nauke, tehnološkog razvoja i inovacija Republike Srbije (ev. broj 451-03-47/2023-01/200096)

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## SIGNED POETRY\*

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**Introduction:** Poetry has always been perceived as an art that is created in writing and expressed in vocal form through recitation. For many critics and lovers of 19th-century poetry, it represents a rhythmic and vibrant synthesis that is reflected in the expressive voice followed by movements and facial expression, contains musical elements in the form of different modes of meter, rhythm, and rhyme that refine it and make it multidimensional, expressive, and refined. Generations of experts have considered the creation of poetry to be a gift or talent unavailable to the deaf and hard of hearing.

**Aim:** The aim of this paper is to point out the historical and sociocultural frameworks, specificities, difficulties, and the contribution of modern technology in the expression of signed poetry of deaf people.

**Method:** The applied methods are comparative analysis, evaluation, and the system of deduction and induction in considering the available literature.

**Results:** Signed poetry has had an informal character for a very long time and was performed in the deaf community at parties, gatherings, and get-togethers. Many scientists and critics did not even think that deaf people could create poetry or be poets. However, John Carlin (1813-1891), although a congenitally deaf person, was a very talented poet, writer, and painter. To his contemporaries, this fact was a surprise and caused disbelief. Thanks to his example, both they and their successors realized that deafness does not limit the possibilities for practicing this form of art. Signed poetry is a visual art form that is becoming more and more relevant in the deaf and hearing community. Although it did not have the same history and institutional support in different countries of the world, signed poetry is attracting increasing interest, financial support, and recognition, primarily thanks to the development of technology.

**Conclusion:** The modern world represents an ideal framework for the development and affirmation of signed poetry. Today, deaf poets record their own signed poetry or translate the poetry of other authors into sign language, so that the videos are available and adapted to the general public.

**Keywords:** *signed poetry, deaf poets, history, modern technology*

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## ŽIVOTNE NAVIKE KOD OSOBA SA STRABIZMOM\*

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**Uvod:** Životne navike predstavljaju društvene uloge koje se procenjuju kroz prizmu svakodnevnih aktivnosti, sociokulturnog statusa ili drugih odlika osobe. Strabizam predstavlja nejednaku usmerenost osa oba oka ka predmetu posmatranja, pri čemu jedno ili oba oka mogu skretati ka nosu ili upolje. Ovakvo stanje umanjuje vizuelne sposobnosti, čime direktno utiče na realizaciju životnih navika i svakodnevnih životnih aktivnosti, a zbog manifestne prirode može negativno uticati na formiranje slike o sebi.

**Cilj:** Cilj istraživanja bio je da se utvrdi da li postoji povezanost životnih navika i pojave strabizma kod odraslih osoba.

**Metode:** Kriterijumi za učešće u istraživanju bili su da osoba ima najmanje 18 godina i da ima dijagnostikovani manifestni strabizam. Te kriterijume u periodu istraživanja ispunile su 33 osobe (17 ispitanika i 16 ispitanica). Podaci su prikupljeni Upitnikom za prikupljanje sociodemografskih podataka i Skalom za procenu životnih navika, skraćenom verzijom (*Assessment of Life Habits general short form* – LIFE-H 3.1). Korišćen je deo skale koji se odnosi na procenu šest domena životnih aktivnosti, a to su: ishrana, opšta kondicija, lična higijena, komunikacija, stanovanje i mobilnost. Istraživanje je obavljeno u Beogradu, u Kliničkom centru Srbije, na Odeljenju za strabizam i ambliopiju.

**Rezultati i zaključak:** Iako su se zbog specifičnih teškoća sa vidom (pojava duplih slika, prisutnih astenopijskih tegoba, problema s percipiranjem dubine prostora itd.) mogli očekivati i izazovi prilikom obavljanja različitih aktivnosti uz domena životnih navika, dobijeni rezultati ukazuju na to da odrasle osobe s manifestnim strabizmom uspešno realizuju aktivnosti ishrane, opšte kondicije, lične higijene, komunikacije, stanovanja i mobilnosti. Preciznije, nisu detektovane razlike između ispitanika i ispitanica, između onih kod kojih je strabizam hirurški korigovan i onih kod kojih nije, kao ni kod osoba sa kod kojih je strabizam nastao kasnije u životu (kongenitalan vs. stečeni). U budućim istraživanjima treba proveriti povezanost ostalih domena životnih navika i društvenih uloga (realizacija školskih ili radnih aktivnosti, međuljudski odnosi itd.) na koje bi uticaj manifestnog strabizma mogao biti značajniji.

**Ključne reči:** životne navike, odrasli, strabizam

\* Rad je rezultat rada na projektu Fakulteta za specijalnu edukaciju i rehabilitaciju koji finansira Ministarstvo nauke, tehnološkog razvoja i inovacija Republike Srbije (br. ugovora: 451-03-47/2023-01)

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## LIFE HABITS IN PEOPLE WITH STRABISMUS\*

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**Introduction:** Life habits is a term that represents social roles that are evaluated through the prism of daily activities, socio-cultural status, or other characteristics of a person. Strabismus represents the unequal orientation of the axes of both eyes towards the object of observation, whereby one or both eyes can turn toward the nose or outwards. This condition reduces visual abilities, which directly affects the realization of life habits and daily life activities, and due to its manifest nature, it can negatively affect the formation of self-image.

**Aim:** To determine whether there is a connection between life habits and the appearance of strabismus in adults.

**Method:** The criteria for participation in the research was that the person was at least 18 years old and had been diagnosed with manifest strabismus. During the research period, the aforementioned criteria were met by 33 respondents (17 males and 16 females). Data were collected by a sociodemographic questionnaire and shortened form of the Assessment of Life Habits (LIFE-H 3.1). Part of the scale that refers to the assessment of six domains of daily activities was used: nutrition, general condition, personal hygiene, communication, housing, and mobility. The research was conducted in Belgrade, at the Clinical Center of Serbia, at the Department of Strabismus and Amblyopia.

**Results and conclusion:** Although due to specific visual difficulties (double vision, presence of asthenopic problems, difficulties with depth perception, etc.), some challenges during various daily activities were expected, the obtained results indicate that adults with manifest strabismus were successful in realizing activities of nutrition, general condition, personal hygiene, communication, housing, and mobility. There were no detected differences between male and female respondents, between those whose strabismus was surgically corrected and those who were not, as well as among adults whose strabismus developed later in life (congenital vs. acquired). Future research should check the connection between other domains of life habits as well as social roles (implementation of school or work activities, interpersonal relationships, etc.) on which the influence of manifest strabismus could be more significant.

**Keywords:** *life habits, adults, strabismus*

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## DIGITAL INCLUSION, QUALITY OF LIFE AND MENTAL HEALTH OF PEOPLE WITH INTELLECTUAL DISABILITIES

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**Introduction:** There is a great value in incorporating digital technology into the lives of people with intellectual disabilities (ID) to promote quality of life, mental health and wellbeing, and enhance social inclusion. Since the COVID-19 pandemic, social distancing and restrictions highlighted even more the importance of ICT (Information Communication Technology) and digital tools as a lifeline. Research shows that people with intellectual disabilities (ID) are left behind in a time of even greater need for participation in digital society.

**Aim:** The aim of this paper is to provide an overview and insight into scientific knowledge about the importance of digital inclusion for people with ID, their quality of life, and their mental health. Through the international multidisciplinary project “Digi-ID Plus” project, granted by EIT Health and led by Trinity College Dublin, we contribute to the digital inclusion of people with ID in five European countries. The main goal of the project is to improve digital inclusion through the education program and platform “DigiAcademy” for the use of digital technology.

**Results and conclusion:** The significance of the project is the inclusive participation of people with ID in all phases: in the co-creation of educational content, design of the digital platform, evaluation, and dissemination. People with ID are co-researchers and are actively involved through the Advisory Board of People with ID, and they become teachers for other persons with ID. Also, we present the current project stage of implementation in Croatia.

**Keywords:** *digital inclusion, quality of life, mental health, people with ID*

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## NAČINI PREVLAĐAVANJA AKADEMSKOG STRESA KOD STUDENATA SPECIJALNE EDUKACIJE I REHABILITACIJE

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**Uvod:** Akademski stres predstavlja rezultat različitih činilaca koji potiču iz akademske sredine – poput pritisaka neposrednog okruženja u pogledu akademskih očekivanja od studenta, stepena akademskog samopouzdanja i uverenja koja se tiču uspeha tokom studija i buduće karijere, kao i zahteva koji se nameću studentima kao izvora stresa. Optimalni nivoi akademskog stresa su očekivani i podsticajni. Međutim, produženo trajanje akademskog stresa, njegov povišen intenzitet praćen neadekvatnim resursima i strategijama prevladavanja, povezan je sa nizom negativnih ishoda na planu fizičkog i mentalnog zdravlja studenata.

**Cilj:** Cilj ovog istraživanja je ispitivanje strategija prevladavanja kao prediktora akademskog stresa kod studenata.

**Metode:** U istraživanju su učestvovala 233 studenta specijalne edukacije i rehabilitacije sa Univerziteta u Beogradu, prvenstveno ženskog pola (95%). Akademski stres je procenjen Skalom opaženog akademskog stresa, dok su podaci o strategijama prevladavanja stresa dobijeni putem inventara COPE.

**Rezultati:** Testiran je regresioni model sa ukupnim skorom na Skali opaženog akademskog stresa kao kriterijumskom varijablom i 15 strategija prevladavanja stresa kao setom prediktora (aktivno prevladavanje, planiranje, suzbijanje konkurentskih aktivnosti, povlačenje, instrumentalna socijalna podrška, emocionalna socijalna podrška, ventiliranje osećanja, bihejvioralna distrakcija, mentalno povlačenje, pozitivna reinterpretacija i razvoj, poricanje, prihvatanje, okretanje religiji, humor, zloupotreba supstanci). U okviru ovog modela ( $F(15,217) = 3.832, p < .001$ ), akademski stres značajno predviđaju strategije aktivno prevladavanje ( $\beta = -.255, p < .001$ ), povlačenje ( $\beta = .295, p < .001$ ) i suzbijanje konkurentskih aktivnosti ( $\beta = .150, p < .05$ ). Ovim setom prediktora objašnjava se 20% varijanse kriterijumske varijable.

**Zaključak:** Rezultati potvrđuju negativnu povezanost aktivnog prevladavanja i akademskog stresa, i suprotno tome, ukazuju da povlačenje pri susretu sa akademskim obavezama pojačava intenzitet stresa. Zanimljivo je zapažanje da rigidni obrazac rešavanja problema, kao što je nedopuštanje osobe da se bilo čime zaokupi dok ne reši problem, takođe pozitivno predviđa akademski stres. Osnaživanje studenata da razumeju i prepoznaju različite strategije prevladavanja akademskog stresa može doprineti prevenciji njegovih negativnih implikacija.

**Ključne reči:** *akademski stres, prevladavanje, studenti, specijalna edukacija i rehabilitacija*

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## OVERCOMING ACADEMIC STRESS AMONG SPECIAL EDUCATION AND REHABILITATION STUDENTS

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**Introduction:** Academic stress is the result of various factors originating from the academic environment – pressure concerning academic expectations, the degree of academic self-confidence and beliefs regarding success during studies and future career, as well as demands imposed on students as a source of stress. Optimal levels of academic stress are expected and encouraging. However, increased intensity of academic stress accompanied by inadequate resources and coping strategies is associated with a number of negative outcomes in terms of physical and mental health of students.

**Aim:** The aim of this research is to examine coping strategies as predictors of academic stress in students.

**Method:** 233 students of special education and rehabilitation from the University of Belgrade, primarily female (95%), participated. Academic stress was assessed with the Perceived Academic Stress Scale, while data on coping strategies were obtained through the COPE inventory.

**Results:** A regression model was tested, with the total score on the Perceived Academic Stress Scale as a criterion variable and 15 stress coping strategies as a set of predictors (active coping, planning, suppression of competing activities, restraint, instrumental social support, emotional social support, venting emotions, behavioral disengagement, mental disengagement, positive reinterpretation and growth, denial, acceptance, religious coping, humor, substance use). Within this model ( $F(15,217) = 3.832, p < .001$ ), academic stress is significantly predicted by active coping ( $\beta = -.255, p < .001$ ), abstinence/withdrawal ( $\beta = .295, p < .001$ ) and suppression of competing activities ( $\beta = .150, p < .05$ ). This set of predictors explains 20% of the variance of the criterion variable.

**Conclusion:** The results confirm the negative association between active coping and academic stress and indicate that withdrawal when meeting academic obligations increases the intensity of stress. An interesting observation is that a rigid problem-solving pattern, such as not allowing a person to preoccupy himself with anything until he solves a problem, also positively predicts academic stress. Empowering students to understand and recognize different strategies for overcoming academic stress can contribute to the prevention of its negative implications.

**Keywords:** *academic stress, coping, students, special education and rehabilitation*

## PRIMENLJIVOST PRAKSI ZA RAZVOJ I UNAPREĐIVANJE SOCIJALNIH VEŠTINA U OSNOVNOJ ŠKOLI – PERSPEKTIVA DEFEKTOLOGA\*

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**Uvod:** Pri definisanju programa razvoja socijalnih veština učenika sa ometenošću važno je, između ostalog, uzimanje u obzir mišljenja profesionalaca o pojedinim metodama i procedurama koje će potencijalno biti korišćene tokom tretmana, kao i mogućnostima njihove primene u praksi.

**Cilj:** Cilj ovog rada je da se utvrdi perspektiva defektologa u pogledu primenljivosti pojedinih praksi za razvoj i unapređivanje socijalnih veština u školskom okruženju.

**Metode:** Uzorak je činilo 57 defektologa koji rade u odeljenjima osnovnih škola za učenike sa smetnjama u razvoju u Srbiji i Makedoniji. Za potrebe ovog istraživanja konstruisan je poseban upitnik za procenu primenljivosti 25 praksi koje su dokazano efikasne za razvoj i unapređivanje socijalnih veština dece i mladih.

**Rezultati:** Više od polovine defektologa smatra da su prakse, poput podsticanja (70,1%), socijalnih priča (68,4%), treninga socijalnih veština (66,7%), vizuelne podrške (63,2%) i potkrepljivanja (63,2%), video-modelovanja (57,9%) i modelovanja (56,1%) primenljive u velikoj meri ili u potpunosti. S druge strane, približno polovina njih (45,6%) veruje da se samousmeravanje ne može primeniti ili se može primeniti samo u određenim situacijama. Isto smatra oko trećine defektologa kada su u pitanju analiza zadatka (40,3%), skripting (31,6%), naturalističke intervencije (29,9%), tretman ključnih odgovora (29,8%), strukturisana grupna igra (29,8%), intervencije koje sprovode vršnjaci (29,8%), diferencijalno potkrepljenje alternativnog, inkopatibilnog ili drugog ponašanja (29,8%) i gašenje (29,8%). Relativno mali procenat ispitanika (7% ili manje) saopštava da ne poznaje dovoljno dobro neke od navedenih praksi, poput diferencijalnog potkrepljenja, gašenja, skriptinga, naturalističkih intervencija...

**Zaključak:** Dobijeni rezultati ukazuju na potrebu dodatne edukacije defektologa u pogledu primene pojedinih praksi, kao i identifikovanja drugih faktora koji ometaju njihovu primenljivost.

**Ključne reči:** *defektolozi, strategije, socijalni razvoj, škola*

\* Rad je nastao kao rezultat rada na Erasmus+ projektu „Inkluzija kroz socijalne veštine za učenike sa autizmom i intelektualnom ometenošću“ (2021-1-RS01-KA210-SCH-000032379)

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## APPLICABILITY OF PRACTICES FOR THE DEVELOPMENT AND IMPROVEMENT OF SOCIAL SKILLS IN PRIMARY SCHOOL – THE PERSPECTIVE OF SPECIAL EDUCATORS\*

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**Introduction:** When defining the social skills development program for students with disabilities, it is important, among other things, to take into account the opinions of professionals about certain methods and procedures that will potentially be used during treatment, as well as the possibilities of their application in practice.

**Aim:** The aim of this work was to determine the perspective of special education teachers regarding the applicability of certain practices for the development and improvement of social skills in the school environment.

**Method:** The sample consisted of 57 special education teachers working in elementary school classes for students with developmental disabilities in Serbia and Macedonia. For the purposes of this research, a special questionnaire was constructed to assess the applicability of 25 practices that are proven to be effective for the development and improvement of social skills of children and youth.

**Results:** More than half of special education teachers believe that practices such as incentives (70.1%), social stories (68.4%), social skills training (66.7%), visual support (63.2%) and reinforcement (63.2%), video modeling (57.9%) and modeling (56.1%) applicable to a large extent or completely. On the other hand, approximately half of them (45.6%) believe that self-direction cannot be applied or can only be applied in certain situations. About a third of special education teachers think the same when it comes to task analysis (40.3%), scripting (31.6%), naturalistic interventions (29.9%), pivotal response training (29.8%), structured group play (29.8%), peer-mediated interventions (29.8%), differential reinforcement of alternative, incompatible or other behavior (29.8%) and extinguishment (29.8%). A relatively small percentage of respondents (7% or less) report that they do not know enough about some of the mentioned practices, such as differential reinforcement, extinguishing, scripting, naturalistic interventions...

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**Conclusion:** The obtained results indicate the need for additional education of special education teachers regarding the application of certain practices, as well as the identification of other factors that hinder their applicability.

**Keywords:** *special education teachers, strategies, social development, school*

RADIONICE  
WORKSHOPS

## PSIHODRAMA KAO GRUPNA TERAPIJA

Dušan Potkonjak\*\*, psihijatar

**Uvod:** Upoznavanje učesnika sa osnovnim pravilima grupne psihoterapije (dobronamernost, poštovanje, poverljivost, bez nasilja i tako dalje).

**Cilj:** U radionici ćemo istraživati mogućnosti kompatibilne integracije Morenove psihodrame, Folksove grupne analize i Jalomove interpersonalne grupne psihoterapije.

**Metode:** Učesnici će biti pozvani da bez upotrebe govora istraže susrete sa drugim polaznicima radionice. Sa nekim učesnicima će se ostvariti duži kontakt očima, a sa nekim kraći. Cilj je da se prate sopstveni intuitivni izbori sa drugim osobama. Nakon toga učesnici će biti pozvani da nađu drugu osobu sa kojom bi želeli da podele nešto i budu u paru. Pratiće se zamena uloga. U drugom delu radionice biće postavljena psihodramska scena. Učesnici će biti pozvani da zamisle osobu koja je važna u njihovom životu. Motivisani učesnici će izaći na scenu psihodrame i postati protagonisti, tako što će izabrati člana grupe da preuzme ulogu te važne osobe.

**Rezultati:** Učesnici će istražiti različite grupne kulture.

**Zaključak:** Putem grupne terapije istražujemo motivaciju, interesovanja i potrebe grupnog procesa.

**Ključne reči:** *grupna psihoterapija, psihodrama, zamena uloga*

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## PSYCHODRAMA AS GROUP THERAPY

Dušan Potkonjak, psychiatrist

**Introduction:** Acquainting the participants with the basic rules of group psychotherapy (benevolence, respect, confidentiality, no violence, etc.)

**Aim:** In the workshop, we will explore the possibilities of compatible integration of Moreno’s psychodrama, Faulks’ group analysis and Yalom’s interpersonal group psychotherapy.

**Method:** Participants will be invited to explore encounters with other workshop participants without the use of speech. Longer eye contact will be made with some participants, and shorter with others. The goal is to follow one’s own intuitive choices with other people. After that, participants will be invited to find another person with whom they would like to share something and be paired. Role reversal will follow. In the second part of the workshop, a psychodrama scene will be staged. Participants will be invited to imagine a person who is important in their life. Motivated participants will step onto the stage of the psychodrama and become protagonists, by choosing a group member to take on the role of that important person.

**Results:** Participants will explore different group cultures.

**Conclusion:** Through group therapy, we explore the motivation, interests and needs of the group process.

**Keywords:** *group psychotherapy, psychodrama, role reversal*

## SPECIFIČNOSTI PROCENE I PREDIKCIJE RAZVOJA PREVREMENO ROĐENE DECE – IZAZOVI U REHABILITACIJI

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**Uvod:** Prevremeno rođene bebe su rođene pre 37. nedelje gestacije. Prevremeno rođena deca su u većem riziku kada je u pitanju smrtnost i udruženi rani ili kasniji komorbiditeti, kao što su: periventrikularna leukomalacija, epilepsija, intraventrikularna hemoragija, cerebralna paraliza, problemi sa hranjenjem, problemi sa vidom i sluhom i mnogi drugi.

**Cilj:** Cilj radionice je da upozna učesnike sa tehnikama procene dostignutog psihomotornog, socioemocionalnog razvoja, senzornog procesuiranja, problemima sa hranjenjem, pravljenja individualnog plana stimulacije, praćenja efekata tretmana.

**Metode:** Radionici može prisustvovati najviše 30 učesnika, a predviđeno vreme trajanja radionice je 90 minuta. Teorijski model za navedene tehnike biće prikazan kroz prezentaciju u trajanju od 15 minuta, video-materijal za sve tehnike procene u trajanju od 20 minuta. Prikaz slučaja za diskusiju i evaluaciju do kraja radionice. U radionici će biti predstavljena Prehtlova tehnika kvalitativne procene spontane motorike, Bayley III skala koja se koristi za procenu dostignutog stepena razvoja u kognitivnom, govorno-jezičkom (receptivni, ekspresivni govor), motoričkom (fina i gruba motorika) domenu, Senzorni profil II važan za procenu načina senzornog procesuiranja.

**Rezultati:** Upoznavanje učesnika radionice sa različitim tehnikama procene dostignutog razvoja i planiranje individualnog plana terapije, mogućnost praćenja efekata terapije u određenim vremenskim intervalima.

**Ključne reči:** *prematuritet, Bayley III skala, Prehtl*

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## ASSESSMENT SPECIFICS AND METHODS OF DEVELOPMENTAL PREDICTION OF PREMATURELY BORN CHILDREN – CHALLENGES IN REHABILITATION

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**Introduction:** Babies born before the 37th week of gestation are considered to be prematurely born babies. Premature babies are at greater risk of mortality as well as the related early and late comorbidities such as: periventricular leukomalacia, epilepsy, intraventricular hemorrhage, cerebral palsy, feeding problems, vision and hearing problems, and many others.

**Aim:** The goal of the workshop is to inform the participants about the techniques of assessing psycho-motor, socio-emotional development, sensory processing, feeding problems, creating an individual plan of stimulation, and monitoring the effects of treatment.

**Method:** A maximum of 30 participants can attend the workshop and the time provided for the duration of the workshop is 1.5 hours. The theoretical model for the mentioned techniques will be introduced in a presentation lasting 15 minutes and video material for all evaluation techniques lasting 20 minutes. Presentation of the discussion case and evaluation will be realized by the end of the workshop. The workshop will present the Prechtl technique of qualitative assessment of spontaneous motor movements, the Bayley III scale, which is used to assess the reached developmental level in cognitive, speech-language (receptive, expressive speech), motor (fine and gross motor) domains, Sensory Profile II important for assessment of how children process sensory information.

**Results:** Introducing the workshop participants with various techniques of assessment of the reached developmental level and creating an individual stimulation plan, the possibility of monitoring the effects of the therapy in certain time intervals.

**Keywords:** *prematurity, Bayley III scale, Prechtl*

## SVEOBUH VATNI PROGRAM PODSTICANJA RAZVOJA

Violeta Nestorov\*\*, Stevan Nestorov\*\*

Centar za logopediju i ranu intervenciju dr Nestorov, Zemun, Srbija

**Uvod:** Kroz radionicu će biti predstavljen „Sveobuhvatni program podsticanja razvoja” koji se sprovodi u Centru za logopediju i ranu intervenciju dr Nestorov. Polazeći od ovog koncepta, u našem fokusu je dete čije telo posmatramo kao manifestaciju ljudskog bića, kroz različite oblasti razvoja: motorički, emocionalni, saznajni, čulni, komunikacijski.

**Cilj:** Cilj radionice je da se učesnici upoznaju sa konceptom sveobuhvatnog programa podsticanja razvoja. Kroz ovaj koncept dete dovodimo u mogućnost da se izrazi u pokretu i delovanju, u odnosu na sebe, druge i okolinu, u cilju da se kroz holistički pristup podstakne razvoj deteta koje je jedinstvo fizičkih, emocionalnih, senzornih i sazajnih oblasti razvoja koje međusobno deluju sa društvenom sredinom. U odnosu na to predstavimo dva polja intervencije: terapeutsko i preventivno.

**Metode:** Radionica će se realizovati kroz upoznavanje učesnika sa teorijskom osnovom sveobuhvatnog podsticanja razvoja, kroz prikazivanje video-zapisa i kroz diskusiju sa učesnicima radionice. Trajanje radionice je 90 minuta.

**Rezultat:** Rezultat radionice je da se učesnici upoznaju sa intervencijama u radu sa decom sa disharmoničnim razvojem, govorno-jezičkim problemima, poremećajima pažnje i ponašanja i za decu sa poremećajima autističkog spektra. Kroz diskusiju sa učesnicima izvršice se evaluacija radionice.

**Zaključak:** Predstavljeni program rada koncipiran je kao razvojni pristup, zasnovan na prirodnoj stimulaciji razvoja, na igri, pokretu, modifikovanju ponašanja i savetovanju roditelja, što sve dovodi do uspeha u oblasti podsticanja razvoja dece. Zbog toga je važno da stručnjaci steknu znanja koja će im pomoći da sveobuhvatno sagledaju razvoj deteta i da na osnovu toga planiraju adekvatne intervencije.

**Ključne reči:** razvoj dece, podsticanje razvoja, sveobuhvatni program

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## HOLISTIC CHILD DEVELOPMENT STIMULATION PROGRAM

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*Center for Speech and Language Pathology and Early Intervention Dr Nestorov,  
Zemun, Serbia*

**Introduction:** The workshop will present the “Holistic Child Development Stimulation Program” which is carried out at the Center for Speech Pathology and Early Intervention Dr Nestorov. Starting from this concept, our focus is on the child whose body we view as a manifestation of a human being, through various areas of development: motor, emotional, cognitive, sensory, communicative.

**Aim:** The aim of the workshop is to familiarize the participants with the concept of a comprehensive development stimulation program. Through this concept, we enable the child to express himself in movement and action, in relation to himself, others and the environment, with the aim of encouraging the development of the child through a holistic approach, which is a unity of physical, emotional, sensory and cognitive areas of development that interact with society. In relation to that, we will present two fields of intervention: therapeutic and preventive.

**Method:** The workshop will be realized through introducing the participants to the theoretical basis of holistic development promotion, through the showing of videos and through discussion with the workshop participants. The duration of the workshop is 90 minutes.

**Results:** The result of the workshop is that participants become familiar with interventions in working with children with disharmonious development, speech and language problems, attention and behavior disorders, and for children with autism spectrum disorders. The workshop will be evaluated through a discussion with the participants.

**Conclusion:** The presented program is conceived as a developmental approach, based on natural stimulation of development, based on play, movement, behavior modification and counseling of parents, which all lead to success in the area of encouraging children’s development. That is why it is important for experts to acquire knowledge that will help them to comprehensively coordinate the child’s development and to plan adequate interventions based on this.

**Keywords:** *child development, stimulation of development, holistic program*

## IZAZOVI INKLUZIJE U SREDNJEM OBRAZOVANJU

Zorica Đoković\*\*

Tehnička škola „Drvo art“, Beograd, Srbija

**Uvod:** Pored pozitivnih zakonskih propisa i unapređenja nastavnog procesa u smislu prihvatanja i poštovanja inkluzivnih vrednosti, škole, a pogotovo srednje stručne, i dalje se suočavaju sa nizom izazova, poput inicijalnog obrazovanja nastavnika, institucionalnog nepoštovanja propisa, saradnje sa roditeljima i nedostatka pedagoških asistenata.

**Cilj:** Ukazati na dominantne probleme u vezi sa inkluzijom u srednjoškolskom obrazovanju.

**Metode:** Analiza legislativnog okvira i iskustva iz prakse.

**Rezultati:** Inicijalno obrazovanje nastavnika ne obuhvata sticanje kompetencija za inkluzivno obrazovanje. U srednjem stručnom obrazovanju nastavnici stručnih predmeta početnici nemaju neophodnih 30 ESPB iz psiholoških, pedagoških i metodičkih disciplina. Obuke stručnog usavršavanja su pretežno teorijske i ne odgovaraju na konkretne potrebe nastavnika. Teškoće u vrednovanju učenika i opterećenost administrativnim poslovima negativno utiču na motivaciju. Pored toga, jedan broj nastavnika inkluziju shvata isključivo kao rad sa decom sa ometenošću. Nepoštovanje propisa koji broj učenika koji rade po IOP2 ograničava na dva po odeljenju dodatno otežava rad i nepovoljno utiče na organizaciju. Posebno ozbiljni izazovi su kada ometenost nije kompatibilna sa izabranim zanimanjem. Odsustvo saradnje roditelja ili njena neadekvatnost, a ponekad i namerna zloupotreba afirmativnih mera, sprečavaju škole da učenicima pruže podršku u onom obimu i kvalitetu u kojem bi to inače mogle. Iako se broj učenika koji imaju pedagoškog asistenta konstantno povećava, još uvek ih nemaju svi učenici, a uz to njihova kompetentnost je veoma upitna, a motivacija nedovoljna. S obzirom na to da srednje obrazovanje služi sticanju veština za rad, odnosno nastavak školovanja, kao posebno značajno pitanje nameće se funkcionalnost znanja i veština koje učenici koji rade po IOP stižu i mogućnost uključenja u svet rada, kao i spremnost prihvatanja takvih učenika od strane kompanija.

**Zaključak:** Dosadašnja praksa pokazuje da postoji znatan raskorak između zakonskih rešenja i resursa za podršku kojim škole raspolažu, te bi ubuduće trebalo raditi na unapređenju kapaciteta škola, ali i pedagoških asistenata i roditelja za podršku učenicima iz osetljivih grupa.

**Ključne reči:** *inkluzivno obrazovanje, srednja škola, individualni obrazovni plan (IOP) 2, saradnja sa roditeljima, pedagoški asistent, afirmativne mere*

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## CHALLENGES OF INCLUSION IN SECONDARY EDUCATION

Zorica Đoković

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**Introduction:** Despite positive legal regulations and improvements in the educational process regarding the acceptance and respect of inclusive values, schools, especially vocational schools, still face a series of challenges such as: initial teacher education, institutional non-compliance with regulations, collaboration with parents, and a lack of educational assistants.

**Aim:** To highlight the dominant issues related to inclusion in secondary education.

**Method:** Analysis of the legislative framework and practical experiences.

**Results:** Initial teacher education does not encompass the acquisition of competencies for inclusive education. In vocational secondary education, novice teachers in vocational subjects lack the necessary 30 ECTS from psychological, pedagogical, and methodological disciplines. Professional development training is predominantly theoretical and does not cater to the specific needs of teachers. Difficulties in student assessment and administrative workload negatively impact motivation. Additionally, a number of teachers perceive inclusion solely as working with children with disabilities. Non-compliance with regulations that limit the number of students working according to IEP2 to 2 per class further complicates work and has a negative impact on organization. Particularly serious challenges arise when the disabilities are not compatible with their chosen profession. The absence of parental cooperation or its inadequacy, and sometimes intentional misuse of affirmative measures, prevent schools from providing students with support to the extent and quality they would otherwise be able to. Although the number of students with pedagogical assistants is constantly increasing, not all students have them, and their competence is highly questionable, with insufficient motivation. Considering that secondary education serves the acquisition of skills for work or further education, a particularly significant issue arises regarding the functionality of knowledge and skills that students working according to IEP acquire, as well as their potential for inclusion in the workforce and the willingness of companies to accept such students.

**Conclusion:** Previous practice shows that there is a significant gap between legal solutions and the support resources that schools have at their disposal. In the future, it will be necessary to work on improving the capacity of schools, as well as pedagogical assistants and parents, to support students from vulnerable groups.

**Keywords:** *inclusive education, secondary school, Individualized Education Plan (IEP)2, collaboration with parents, pedagogical assistant, affirmative measures*

## TAKTILNA STIMULACIJA DECE U SENZORNOJ SOBI

Katarina Jovanović\*\*, Saška Čvorak\*\*

OŠ „Radivoj Popović“, Zemun, Srbija

**Uvod:** Taktilni senzorni sistem, jedan od bazičnih i najvećih senzornih sistema, ima osnovnu ulogu da prenese taktilne osete od receptora do centralnog nervnog sistema putem dva trakta — diskriminativnog i zaštitnog. Pored ove, ima i značajnu ulogu u formiranju veze majka-dete, kao i u emocionalnom razvoju deteta. Uredan proces diskriminacije u taktilnom proprioceptivnom i vestibularnom sistemu, obezbeđuje detetu glatke i koordinisane pokrete.

**Cilj:** Predstavljanje praktičnih metoda rada u identifikaciji i tretmanu dece kod koje postoji manifestacija poremećaja senzorne diskriminacije, bilo da je u pitanju hipersenzitivnost ili hiposenzitivnost.

**Metode:** Radionica podrazumeva prezentovanje video-materijala nastalih tokom procene i tretmana senzorne integracije, upitnika koji se najčešće koriste u dijagnostikovanju poremećaja senzorne diskriminacije taktilnog sistema, kao i diskusiju sa učesnicima.

**Rezultati:** Polaznici radionice će steći znanja o simptomima koji ukazuju na poremećaj senzorne diskriminacije, o izboru sredstava i tehnikama koje se koriste u tretmanu, te stvaranju povoljnog senzornog okruženja, kako u školi, tako i kod kuće.

**Zaključak:** Za razvoj dece od izuzetnog je značaja da vaspitači, nastavnici, specijalni edukatori i rehabilitatori budu upućeni u važnost ranog prepoznavanja simptoma taktilne disfunkcije i upućivanja deteta na procenu kod stručnjaka za senzornu integraciju.

**Ključne reči:** *taktilni senzorni sistem, senzorna integracija, rani uzrast*

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## TACTILE STIMULATION IN CHILDREN IN THE SENSORY ROOM

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**Introduction:** Tactile sensory system, one of the basic and the biggest sensory systems, has a fundamental role to convey tactile sensations from receptors to the central nervous system through two tracts, discriminative and protective. Along with that, it also has an important role in forming a mother-child relationship, as well as in emotional development of a child. Proper discrimination process in the tactile proprioceptive and vestibular system provides the child with smooth and coordinated movements.

**Aim:** Presentations of practical work methods in identification and treatment of children with manifestation of sensory discrimination disorder, whether it's hypersensitivity or hyposensitivity.

**Method:** The workshop includes presentation of video-materials created during sensory integration evaluation and treatment, questionnaires most often used in diagnosing tactile discrimination disorder, as well as a discussion with the participants.

**Results:** The workshop attendees will gain knowledge about symptoms that indicate sensory discrimination disorder, choice of means and techniques that are used in treatment and creating a favourable sensory environment, both at school and home.

**Conclusion:** For child development it is extremely important that educators, teachers, special educators and rehabilitators must be informed about the significance of an early recognition of tactile dysfunction symptoms and refer the child for evaluation by a sensory integration specialist.

**Keywords:** *tactile sensory system, sensory integration, early age*

## MULTIMODAL APPROACH TO INTERACTION AND COMMUNICATION FOR INDIVIDUALS WITH SENSORY AND MULTIPLE DISABILITIES

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**Introduction:** Children with sensory and multiple disabilities, despite their heterogeneity, often struggle to progress beyond early stages of communication, with compromised symbolic understanding. Symbols can be effectively introduced only during episodes of shared attention, emphasizing the need for skilled communication partners who can consistently mediate, co-create, and share meanings with children through meaningful activities that foster shared attention. However, professionals sometimes introduce symbolic forms to these students without adequately considering their ability to coordinate attention between people and objects and adapt to such interactions.

**Aim:** This workshop aims to help professionals analyze interaction and communication in children with visual and multiple disabilities, focusing on communication development, structure, and function.

**Method:** The methods include video analysis, observation of engagement levels, and small group discussions on embedding communication opportunities. At the end of the workshop, their insights will be summarized in guidelines that they can use in their practical work.

**Results:** The workshop will result in participants gaining practical skills and strategies to observe and understand the communication structure, development, and functionality in children with sensory and multiple disabilities. The workshop will provide practical skills for enhancing communication opportunities in meaningful activities.

**Conclusion:** Children with sensory and multiple disabilities often have self-focused attention, leading to limited engagement with others and a lack of engagement with objects and the environment. Skilled teachers are needed to redirect and support their attention, encouraging interaction and shared experiences. The capacity of teachers to accurately perceive and adjust to the child's level of attention, while gently guiding them towards a shared understanding, is a crucial set of skills for educators engaged in communication intervention for children with sensory and multiple disabilities.

The duration of the workshop will be 90 minutes. The maximum number of participants is 25. The workshop objectives will be evaluated through pre and post-workshop questionnaires, discussions with participants, and participant feedback.

**Keywords:** *sensory impairments and multiple disabilities, presymbolic communication, activity-based intervention, attention levels*

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