

Povezanost obilježja razrednika i učenika u procjeni simptoma nepažnje, impulzivnosti i hiperaktivnosti povezanih s ADHD poremećajem

/ Relations between Teacher and Student Characteristics in the Assessment of Symptoms of Inattention, Impulsivity and Hyperactivity Related to ADHD

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U radu se ispituje razrednikova procjena pojavnosti simptoma deficita pažnje, impulzivnosti i hiperaktivnosti povezanih s ADHD poremećajem kod učenika osnovnih škola, obilježja razrednika i učenika te relacije navedenih varijabli. Razrednici su procjenjivali 242 učenika u 26 osnovnih škola podjednako iz četiri županije Republike Hrvatske kod kojih su otkrili četiri i više simptoma nepažnje. Korištene su dvije ljestvice: Ček lista Merrell i Tymms te 2 dimenzije Vanderbiltove ljestvice: nepažnja i impulzivnost/hiperaktivnost. Korelacijskim analizama utvrđena je povezanost obilježja razrednika (veći broj tjednih sati poučavanja i viša razina procijenjene potrebe za dodatnom pomoći u učenju i/ili podršku u ponašanju) s ispitivanim dimenzijama. Nadalje, razrednikova samoprocjena niže razine zadovoljstva odnosom s učenikom povezana je s višom razinom prisutnosti hiperaktivnosti i impulzivnosti. Također, viši školski uspjeh i materijalni status roditelja učenika povezani su s višom procjenom pojavnosti simptoma nepažnje i impulzivnosti-hiperaktivnosti. Niži akademski uspjeh učenika povezan je s višom razinom razrednikove procjene pojavnosti nepažnje, a viši školski uspjeh s višom razinom pojavnosti impulzivnosti-hiperaktivnosti. Viša razina potrebe za dodatnom pomoći u učenju povezana je s višom razinom pojavnosti nepažnje, dok je potreba za dodatnom pomoći u regulaciji ponašanja povezana sa sva tri simptoma.

/ The paper examines teachers' assessment of the symptoms of attention deficit, impulsivity and hyperactivity related to ADHD among elementary school students, the characteristics of class teachers and students and the relationship between them. Class teachers evaluated 242 students of all grades from 26 elementary schools evenly spread across four counties of the Republic of Croatia, in whom they detected four or more symptoms of inattention. Two scales were used: Checklist (Merrell and Tymms) and two dimensions of the Vanderbilt scale: inattention and impulsivity/hyperactivity. The correlation between class teacher characteristics (a greater number of weekly teaching hours and a higher level of assessed need for additional help in students' learning and/or supporting behaviour problems) and the investigated dimensions was established by a correlation analysis. Furthermore, a lower degree of the self-assessed relationship with the student is associated with a higher level of hyperactivity/impulsivity incidence. Also, the school's academic achievement and material status of the students' parents are related to the higher estimation of symptoms of inattention and impulsivity-hyperactivity. The students' lower academic achievement is associated with a higher level of the teachers' assessment of inattention, and higher academic achievement with a higher level of impulsivity-hyperactivity symptoms. The need for additional help in students' learning has been associated with the increased levels of inattention, while the need for additional help in supporting behaviour is associated with all three symptoms.

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Od začeća nadalje razvoj pojedinca pod utjecajem je interakcije biološke osnove (gena) i utjecaja iz okruženja, a optimalni razvoj karakteriziraju ponašanja primjerena razvojnoj dobi. Odstupanja u ponašanju bilo pod utjecajem biološke osnove djeteta ili okolinskih činitelja mogu biti indikatori neurorazvojnih poremećaja dječje i adolescentne dobi.

Ponašajna odstupanja djece u dimenzijama nepažnje, impulzivnosti i hiperaktivnosti u školskoj sredini značajno utječu na ukupno funkcioniranje djeteta pri čemu je važno dijagnosticirati radi li se o deficitu pažnje/hiperaktivnom poremećaju (engl. *Attention Deficit Hiperactivity Disorder* – ADHD). Prema DSM V (1) ADHD je jedan je od najčešćih neurorazvojnih poremećaja dječje i adolescentne dobi koji karakteriziraju hiperaktivnost, impulzivnost i nedostatak pozornosti (2,3). Etiologija poremećaja je složena, a dominiraju genetske i organske teorije. Tehnike oslikavanja mozgovne aktivnosti (engl. *neuroimaging*) utvrdile su odstupanja, poremećaje u strukturi i funkciji, u neuralnim mrežama prefrontalnog režnja (engl. *frontal–striatal–cerebellar network*) i mogućim drugim područjima koja mogu biti odgovorna za teškoće s inhibicijom izvršnih funkcija (3).

U kontekstu obrazovnih znanosti temeljno polazište je definiranje razvojne teškoće prema

INTRODUCTION

Individual life, from conception onward, is influenced by the interaction of the biological basis (genes) and the environment, with the optimum development characterized by behaviours appropriate to the developmental age. Some children / students exhibit behavioural problems, either influenced by the biological basis or environmental factors, whereby the above-mentioned problems can be indicators of neurodevelopmental disorders of children.

Behaviours such as inattention, impulsiveness and hyperactivity in the school environment significantly affect the overall functioning of the child, and it is important to diagnose whether attention deficit hyperactivity disorder (ADHD) is present. According to DSM V (1), ADHD is one of the most common neurodevelopmental disorders in children and adolescents characterized by hyperactivity, impulsiveness and lack of attention (2,3).

The aetiology of the disorder is complex and dominated by genetic and organic theories. The brain imaging technique (neuroimaging) detected areas of the neural network of the prefrontal lobe (frontal–striatal–cerebellar network) and other possible areas as involved in the difficulties with inhibition and executive functioning (3).

In the context of educational sciences, the basic starting point is defining developmental difficulties according to the Orientation-list of the

Orijentacijskoj listi vrsta teškoća (4), sukladno medicinskom modelu. Učenici koji imaju dijagnozu ADHD-a klasificiraju se prema Orijentacijskoj listi vrsta teškoća (4) u skupinu Poremećaji u ponašanju i oštećenja mentalnog zdravlja (skupina 6), podskupina poremećaji pažnje i aktivnosti (5,6).

Posljednja dva desetljeća obilježja ponašanja djece i mladih s ADHD značajno su u fokusu stručne i javne rasprave, a djeca čija su ponašanja intenzivna i vrlo aktivna nazivaju se hiperaktivnom ili djeca s ADHD. Međutim, utvrđivanje ADHD provodi se isključivo temeljem dijagnostičkih kriterija multidisciplinarnog tima (2,3) u složenom postupku. Različiti autori navode različite stope pojavnosti ADHD, u rasponu od 3-5 % (2) do zastupljenosti od 8 % do 12 % (5).

Ako nastavnici indiciraju pojavnost nepažnje, impulzivnosti i hiperaktivnosti učenika, stručni tim škole, procjenjuje, objedinjuje podatke i upućuje roditelje da uključe učenika u multidisciplinarnu dijagnostičku obradu. Najčešće se upućuju učenici koji pokazuju probleme u školskom i socijalnom funkcioniranju. Razvijene su ljestvice procjene kojima se bilježe prisutnost ponašanja karakteristična za ADHD i u suglasju s dijagnostičkim kriterijima ADHD-a. Takve liste procjene, koje se referiraju na školsko okruženje (8) mogu ukazivati na ponašanja povezana s ADHD poremećajem, no autorice liste upozoravaju na oprez prije postavljanja dijagnoze, za koju je, kao što je već napomenuto, potreban sustavan i multidisciplinarni pristup u koji se uključuje, osim odgojno-obrazovnog, i zdravstveni sektor. Prema mišljenju autorica (8), kod 15 % svih učenika prisutno je 4 do 6 simptoma povezanih s ADHD-om. Na sličan način se primjenom Vandrebildtove ljestvice (6,7) nudi mogućnost da se, osim trijasa nepažnje, impulzivnosti i hiperaktivnosti istovremeno u školi mjere i sekundarne pojave poput emocionalnih problema i problema antisocijalnosti

types of developmental difficulties (4) in accordance with the medical model of inclusion of students with disabilities. Students with ADHD are classified according to the Orientation-list of the types of developmental difficulties (4) in a group of students with Behavioural Disorder and Mental Disorders (Group 6), Subgroup Attention Deficit/Hyperactivity Disorders (6.5).

In the last two decades, the children with ADHD have been in the focus of professional and public discussion, and children with intensive or high active behaviours are labelled as hyperactive or having ADHD. However, diagnosis of ADHD is conducted solely on the basis of diagnostic criteria by a multidisciplinary team (2,3) in a complex procedure. Different rates of ADHD are cited by different authors, ranging from 3-5% (2) to 8-12% (5).

If teachers indicate the occurrence of a student's inattention, impulsiveness and hyperactivity, the schools' professional expert team makes the assessment, aggregates data and directs the parents to involve the student in a multidisciplinary diagnostic procedure. Students who show signs of problems in school and social functioning are most often referred to the procedure. Assessment scales have been developed to check the presence of behaviours that are characteristic of ADHD in accordance with the ADHD diagnostic criteria. Those assessment scales that refer to the school environment (8) may indicate behaviours related to the ADHD, but the authors warn of caution before diagnosis, for which, as already mentioned, a systematic and multidisciplinary approach is required, involving the education and health sector.

According to Merrell and Tymms (8), there are 4 to 6 ADHD-related symptoms in 15% of all students. Similarly, by using the Vanderbilt Scale (6,7), it is possible, besides inattention, impulsiveness and hyperactivity, to measure in school, at the same time, secondary occurrences such as emotional problems and problems with anti-social behaviour that can be developed in the spectrum of behavioural problems.

koji se kod učenika mogu razviti u spektru problema u ponašanju. Spektar problema u ponašanju uključuje progredirajuće razine od rizičnih ponašanja (npr. prkos ili otpor autoritetu učitelja, neizvršavanje školskih obveza), preko teškoća u ponašanju (npr. bježanje iz škole, agresivno ponašanje prema drugim učenicima, pretjerana povučenost i dugotrajni i intenzivni deficit u pozitivnim socijalnim interakcijama s vršnjacima) do najtežih pojavnih oblika poremećaja u ponašanju (npr. činjenje kaznenih djela, dugotrajno nasilno traumatiziranje drugih vršnjaka, asocijalnost povezana s napuštanjem školovanja) (9). Naime, svrha pravovremenog i kvalitetnog procjenjivanja simptoma je osmišljavanje i planiranje kvalitetne stručne podrške i pomoći (10-12) što kod učenika podržava njegov optimalan psihosocijalni razvoj. Kvalitetna stručna podrška i pomoć trebaju osigurati da rizična ponašanja ne progrediraju prema teškoćama u ponašanju, odnosno prema poremećajima u ponašanju koji su fenomenološki i etiološki daleko najteži oblici ponašanja (9).

Gotovo svaki suvremeni razred u hrvatskim osnovnim školama uključuje bar jednog učenika ili učenicu (dalje učenik) koji se od ostalih učenika razlikuje po jednom ili više bitnih promjenjivih ili nepromjenjivih obilježja osobnosti ili okruženja. Neka promjenjiva obilježja, a to su obilježja u socijalnom prostoru učenika, mogu biti elementi planiranja dodatne socijalne, psihološke, pedagoške, sociopedagoške, edukacijsko-rehabilitacijske, logopedske i druge stručne pomoći učeniku ili njegovoj obitelji (10,11,13). Jedno od takvih obilježja je i materijalno siromaštvo u obitelji što je čest korelat s impulsivnošću kod učenika (14,15) kao i akademski neuspjeh.

Jedna od ključnih kompetencija razrednika, osobito u odnosu na učenike koji nisu uspješno socijalno adaptirani u školi, je njegova sposobnost razumijevanja učenikovih potreba te sposobnost uspostavljanja adekvatnog odno-

The spectrum of behavioural problems includes progressive levels of risk behaviour (e.g. defiance or resistance to teacher authority, non-fulfilment of school obligations), behavioural difficulties (e.g. running away from school, aggressive behaviour towards other students, excessive reticence and a long-term and intense deficit in positive social interactions with peers) to the most severe forms of behavioural disturbances (e.g. committing criminal offenses, long-term violent trauma of other peers, antisocial behaviour with regard to the abandonment of schooling) (9).

Namely, the purpose of the prompt and quality assessment of the symptoms is to design and plan the quality of professional support and help (10-12) which supports the student's optimum psychosocial development. Quality professional support and assistance should ensure that risk behaviours are not progressive towards behavioural difficulties, i.e. behavioural disorders that are phenomenologically and aetiologically by far the most severe forms of behaviour (9).

Almost every contemporary class in Croatian primary schools includes at least one student who differs from other students by one or more of the essential, changing or irreversible characteristics of personality or environment. Some variable features, which are the characteristics of a student's environment, can be elements of planning additional social, psychological, pedagogical, socio-pedagogical, educational and rehabilitation speech therapy or any other professional support to the student or his or her family (10,11,13).

One of these characteristics is also material poverty in the family, which is a common correlate of impulsiveness among students (14,15) as well as academic failure.

One of the key competences of the teacher, particularly in relation to students who are not successfully socially adapted to school, is the ability to understand the students' needs and the ability to establish an adequate relationship of mutual acceptance (16). Class teachers

sa uzajamnog prihvaćanja (16). Razrednici u osnovnoj školi su za učenike važni odrasli. Stoga se blizak odnos razrednika s učenicom koji ima teškoće promatra kao zaštitni faktor za socijalno i emocionalno prilagođavanje i funkcioniranje učenika (17). Za takav odnos je odgovoran razrednik s očekivanim kompetencijama inkluzivnog učitelja (18), pa je u ovom radu također zanimljivo analizirati kako je navedeni odnos povezan s procjenjivanjem pojedinih simptoma ponašanja kod učenika: nepažnja, impulzivnost /hiperaktivnost.

CILJ RADA

Cilj ovog rada je ispitati razrednikovu procjenu pojavnosti simptoma deficita pažnje, impulzivnosti i hiperaktivnosti povezanih s ADHD poremećajem kod učenika osnovnih škola, obilježja razrednika i učenika te relacije navedenih varijabli.

U istraživačkom je smislu zanimljivo utvrditi povezanost obilježja razrednika (dob, spol, osobni odnos s učenicom, broj tjednih sati predavanja) kao i obilježja učenika (materijalno stanje u obitelji, redovitost roditelja na informiranju o učeniku, akademski uspjeh), te procijenjenu potrebu za dodatnom pomoći u učenju i regulaciji ponašanja učenika. Jedna od mogućih aplikativnih svrha istraživanja je dati doprinos razumijevanju elemenata strukture učenikovog okruženja kako bi se unaprijedili postupci procjenjivanja i poboljšala kvaliteta pravovremenog i potrebama usmjerenog interveniranja za učenike koji manifestiraju ponašanja povezana s ADHD sindromom. Najprije će se utvrditi razine promatranih varijabli, a potom ispitati njihov odnos. S obzirom da se radi o uzorku učenika kod kojih su razrednici uočili teškoće u ponašanju očekuju se više vrijednosti u odnosu na mogući raspon rezultata na svim varijablama koje se tiču učenika. Nadalje, očekuje se da će vrijednosti simptoma povezanih s ADHD sin-

in primary school are important adults to their pupils. Hence, the close relationship of a class teacher to a disadvantaged student is viewed as a protective factor for social and emotional adaptation and functioning of a student (17). Such a relationship is the responsibility of a class teacher with the expected competences of an inclusive teacher (18), so it is also interesting to analyse in this paper how this relationship is related to the assessment of certain symptoms of behaviour in students, such as inattention or impulsivity/hyperactivity.

AIM

The aim of this paper was to examine the teachers' assessment of the symptoms of inattention, impulsivity and hyperactivity associated with ADHD among elementary school pupils, the characteristics of class teachers and students and the relationship between them.

From a research perspective, it is interesting to determine the correlation of the characteristics of class teachers (age, gender, personal relationship with the student, weekly teaching hours) as well as the characteristics of the students (material situation in the family, the parents' regularity at parental meetings, academic achievement), and the estimated need for additional help in students' learning and supporting behaviour. One of the possible applicative purposes of the research is to contribute to the understanding of the structural elements of the student's environment in order to enhance assessment procedures and improve the quality of prompt and targeted interventions for students who manifest behaviours associated with ADHD syndrome.

First, the level of observed variables will be determined and then their relationship will be examined. Given that this is a sample of students, in whom the class teacher perceived behavioural issues, higher values are expected compared to the possible range of results on all variables concerning students. Furthermore, it is expect-

dromom biti povezane s ostalim promatranim varijablama.

METODE

Sudionici i postupak

U provedenom istraživanju sudjelovali su razrednici od prvog do osmog razreda iz 26 osnovnih škola pet županija Republike Hrvatske: Koprivničko-križevačka, Sisačko-moslavačka, Varaždinska, Primorsko-goranska i Međimurska. Istraživanje je bilo ponuđeno svim školama u navedenim županijama, a sudjelovale su samo one škole koje su se pristale uključiti u istraživanje. U svakoj školi koja se pristala uključiti u istraživanju sudjelovali su samo oni razrednici koji su to željeli. Za učenike uključene u istraživanje njihovi razrednici su izjavili kako *misle ili osjećaju da učenici imaju teškoće u ponašanju na nastavi, odmoru, tijekom slobodnih aktivnosti i slično*. Razrednici su bili zamoljeni procijeniti jednog do više takvih učenika u svojem razredu te dati neka mišljenja i samoprocjene u vezi s tim učenicima. Odabir uzorka učenika za koje su razrednici davali mišljenja i samoprocjene tekao je u dvije faze. U prvoj su razrednici primjenom Ček liste ponašanja učenika (7) selekcionirali učenike koji manifestiraju četiri ili više simptoma nepažnje. U drugoj fazi su razrednici na tako selekcioniranom uzorku učenika procjenjivali ponašanje na dvjema dimenzijama Vanderbiltove ljestvice: (1) Impulzivnost-hiperaktivnost i (2) Nepažnja, te su ispunili Upitnik za učitelje. U prosjeku je svaki razrednik u svom razredu otkrio 1,32 učenika koji manifestiraju četiri i više simptoma nepažnje prema Ček listi ponašanja učenika (7), a u tablici 1 su prikazani osnovni demografski podatci za učenike i razrednike.

Prosječna dob razrednika je 42 godine, u rasponu od 25 do 63 godine, a prosječna dob učenika 11 godina, u rasponu od 7 do 17 godina. Među identificiranim učenicima koji manifestiraju 4

ed that the values of symptoms associated with the ADHD syndrome will be related to other observed variables.

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METHODS

Sample and procedure

The survey was conducted from the first to the eighth grade of 26 primary schools from five counties of the Republic of Croatia: Koprivničko-križevačka, Sisačko-moslavačka, Varaždinska, Primorsko-goranska and Međimurska. The study was introduced to all schools in the mentioned counties, and only those schools that agreed to participate in the study took part. Similarly, in each of the schools that agreed to take part, only those educators who wanted to participate in the study did so. For the students involved in the survey, their class teachers stated that they think or feel that students have behavioural issues during leisure time and activities. The class teachers were asked to evaluate one or more of these students in their classroom and give some opinions and self-assessments about these students. The selection for the sample of students for which the class teachers gave their opinions and self-assessments went through two phases. In the first phase, using the Checklist of Student Behaviour (7), the class teachers selected students who exhibit four or more symptoms of inattention. In the second stage, in a selected sample of students, the class teachers evaluated child behaviour on two dimensions of the Vanderbilt scale: (1) impulsivity-hyperactivity and (2) inattention and filled a teacher questionnaire. On average, in each classroom 1.32 students exhibited four or more symptoms of inattention according to the Checklist of Student Behaviour (7), and Table 1 shows the basic demographic data for students and class teachers.

The average age of the class teacher is 42 years, ranging from 25 to 63 years, and the average age of students is 11 years, ranging from 7 to 17 years. Among identified students who ex-

TABLE 1. Basic demographic data for students and class teachers

Basic demographic data	Students (N=242)	Class teachers (N=183)
Age-average	$M_{age}=11.01$; $SD=2.29$	$M_{age}=42.44$; $SD=9.38$
Age-range	from 7 to 17	from 25 to 63
Gender	206 (85.10%) male	40 (16.50%) female

i više simptoma nepažnje 85 % je učenika i 15 % učenica.

Zastupljenost prema razredima je uglavnom ravnomjerna (tablica 2).

Redovan program (tablica 3) pohađalo je 168 (69,40 %) učenika, a primjereni program školovanja prema Pravilniku o osnovnoškolskom odgoju i obrazovanju učenika s teškoćama u razvoju (4), 74 (30,60 %).

U selekcioniranom uzorku učenika 76 (31 %) je učenika razredne, a 69 % predmetne nastave (tablica 4).

Mjerni instrumenti

Vanderbiltova ljestvica procjene Upitnik za učitelje (NICHQ Vanderbilt Assessment Scale - TEACHER informant) (6) originalno se sastoji od ukupno 35 čestica grupiranih u četiri podljestvice (Impulzivnost-hiperaktivnost, Nepažnja, Emocionalni problemi i Antisocijalnost). Navedene četiri dimenzije iz originalnog su oblika prevedene i mjerne karakteristike potvrđene na hrvatskom uzorku (7). Za potrebe ovog rada

hibit 4 and more symptoms of inattention, 85% are male and 15% female students.

The representation of grades is generally even (Table 2).

Among selected students, 168 (69.40%) of them attended the regular program (Table 4), an appropriate schooling program according to the Regulations on elementary school upbringing and education of pupils with developmental difficulties (74) (74%).

Of all selected students, 76 (31%) students are attending grade 1 to 4, and 69% from 5 to 8 (Table 5).

Instruments

NICHQ Vanderbilt Assessment Scale - TEACHER informant (6) originally consists of a total of 35 items grouped into four sub-scales (Impulsivity-Hyperactivity, Inattention, Emotional Problems and Antisocial behaviour). The four dimensions mentioned in the original form have also been translated and measured characteristics were confirmed on the Croatian sample (7).

TABLE 2. Student distribution according to grade

Grade	Frequency(N)	Percent (%)
1.	19	7.90
2.	28	11.60
3.	40	16.50
4.	21	8.70
5.	33	13.60
6.	36	14.90
7.	27	11.20
8.	38	15.70
Total	242	100.00

TABLE 3. Student distribution according to the type of school program

Program	Frequency(N)	Percent (%)
Regular	168	69.40
Other	74	30.60
Total	242	100.00

TABLE 4. Student distribution according to schooling cycle

Cycles	Frequency(N)	Percent(%)
1-4	76	31
5-8	166	69
Total	242	100.00

analizirane su dvije podljestvice: a) Impulzivnost-hiperaktivnost (N=12; $\alpha=0,96$; „Odgovara i prije nego je pitanje postavljeno do kraja.”) i b) Nepažnja (N=9; $\alpha=0,89$; „Ima poteškoća pri organiziranju i izradi zadataka i aktivnosti”). Ispitanici su obilježavali stupanj slaganja ili neslaganja s pojedinom tvrdnjom na Likertovoj ljestvici od četiri stupnja (od 0 – nikad, 1 – povremeno, 2 – često, 3 – vrlo često). Rezultati su se računali kao zbroj svih čestica podijeljen s brojem čestica odnosno linearni kompoziti.

Obilježja razrednika i učenika mjerena su pitanjima posebno konstruiranim za potrebe ovog istraživanja. Među izmjerenim obilježjima razrednika su dob, spol (0=M;1=Ž), osobni odnos s učenicom (od 0=nezadovoljavajući do 2=vrlo dobar) i broj tjednih sati predavanja, pri čemu su veći broj tjednih sati predavanja imali razrednici učenika razredne nastave od razrednika učenika predmetne nastave. Od obilježja učenika su razrednici procijenili učenikovo materijalno stanje u obitelji (0=lošije od prosječnog do 2=bolje od prosječnog); redovitost roditelja na informiranju o učeniku (0=NE; 1=DA) i akademski uspjeh (od 1=nedovoljan do 5=izvrstan). Za razrednikovu procjenu potrebe za dodatnom pomoći u učenju i regulaciji ponašanja učenika su korištene dvije univarijatne varijable koje su prethodno konstruirane i korištene u istraživanju potreba rizičnih ponašanja učenika u osnovnoj školi (19): a) Mislite li da bi ovom učeniku trebala dodatna pomoć u učenju, b) Mislite li da bi ovom učeniku trebala dodatna pomoć u regulaciji ponašanja, a način odgovaranja bio je 0=NE i 1=DA.

Prikupljanje i obrada podataka

Podatci su prikupljeni tijekom akademske godine 2016./2017. kao dio projekta „Razine rizika za probleme u ponašanju djece rane razvojne dobi i stručne intervencije¹“sufinancij-

¹ http://www.ufri.uniri.hr/files/Znanstveni_rad/060515_vlah_projekt_saetak.pdf

Two subscales were analysed for the purpose of this paper: a) Impulse-hyperactivity (N = 12; $\alpha = 0.96$; “Match even before the question is put to the end.” and b) Inattention (N = 9; $\alpha = 0.89$; difficulties in organizing and developing tasks and activities). Respondents marked the degree of agreement or disagreement with a particular statement on the Likert scale of four degrees (0 - never, 1 - occasionally, 2 - often, 3 - very often). The results were counted as the sum of all particles divided by the number of particles or linear composites.

The characteristics of the class teachers and the students are measured by items specifically designed for the purpose of this study. Among the measured characteristics of the class teachers are age, sex (0 = M; 1 = F), assessment of personal relationship with the student (from 0 = unsatisfactory to 2 = very good) and the number of weekly teaching hours, with a greater number of weekly teaching hours of teachers in grades 1-4 compared to subject teachers. The characteristics of the students that are assessed by class teachers are: the student's material conditions in the family (from 0 = worse than average to 2 = better than average); the regularity of parents attending parental meetings (0 = NO; 1 = YES) and Academic achievement (from 1 = Insufficient to 5 = Excellent).

For the teachers' assessment of the need for additional help in the students' learning and behavioural support, two univariate variables were used, and were previously engineered and used in the study of the needs of the student's risk behaviour in elementary school (19): a) Do you think that this student needs additional learning help, b) Do you think that this student needs additional help in behaviour, and the answer mode was 0 = NO and 1 = YES.

Data collection and analysis

The data was collected during the academic year 2016/2017 as part of the project “Levels of risk for behavioural problems of early developmen-

ranog od Sveučilišta u Rijeci, koji se nastavlja 2017./2018. godine u drugim županijama u Hrvatskoj. Metodološki nacrt je s etičkog aspekta odobren od učiteljskih fakulteta u Rijeci u vrijeme prikupljanja podataka, a nakon toga je dobio odobrenje Ministarstva znanosti i obrazovanja. Istraživanje je odobreno u svakoj školi prije nego su zatražene suglasnosti razrednika za sudjelovanje. Svaki razrednik dao je usmenu suglasnost za sudjelovanje u istraživanju. Prikupljanje je bilo dobrovoljno i anonimnost podataka je osigurana razrednicima i učenicima. Učenici nisu ni na koji način neposredno sudjelovali u prikupljanju podataka. Identitet razrednika i učenika je tijekom cijelog procesa prikupljanja i obrade podataka bio zaštićen od svih sudionika istraživanja. Upitnike za učitelje distribuirale su četiri studentice koje su iz podataka istraživanja obranile svoje diplomske radove. Svi su upitnici bili u omotnicama koje su zatvarane nakon ispunjavanja, a sudionicima se na zahtjev mogli poslati rezultati istraživanja za njihovu školu. Podatci su obrađeni deskriptivnom i korelacijskom statistikom.

REZULTATI

S obzirom na cilj rada provedene su deskriptivne i korelacijske analize čiji se rezultati mogu vidjeti u tablicama koje slijede.

U selekcioniranom uzorku učenika razrednici procjenjuju da s većinom učenika imaju dobar ili vrlo dobar odnos, a tek 3 % razrednika navodi nezadovoljavajući odnos s učenicom (tablica 5).

TABLE 5. Distribution of results of teachers' estimated relationship with students

Relationship	Frequency (N)	Percent (%)
Unsatisfactory	6	2.5
Good	133	55
Very good	100	41.3
Total	239	98.8
Missing	3	1.2

tal and professional interventions" co-financed by the University of Rijeka, which continues in 2017/2018 in other counties in Croatia. At the time of data collection, the study was ethically approved by the Faculty of Teacher Education in Rijeka, and afterwards was approved by the Ministry of science and education. Also, the study underwent school approval in each school before further consent to participate was requested. Each teacher gave their oral consent to participate in the study. Participants contributed to the study voluntarily and anonymity was ensured for teachers and students.

The students did not participate directly in data collection in any way. During the entire process of data collection and processing, the identity of the class teacher and students was protected from all the participants of the study. Teacher questionnaires were distributed by four students who used the collected data for their final theses. All questionnaires were placed in envelopes when filled in, and the results are provided upon the participants' request. The data was processed with descriptive and correlative statistics.

RESULTS

According to the aim of the study, descriptive and correlative analyses were performed and their results can be seen in the tables below.

In the selected students' sample, the class teachers estimate that their relationship with most students is a good or very good, and only 3% of them state an unsatisfactory relationship with the student (Table 5).

The number of weekly teaching hours (Table 6) is consistent with the distribution of teachers into those who do classroom or subject teaching (Table 4), i.e. classroom teachers have a greater number of weekly classes.

For two-thirds of the students in the selected sample, the class teachers consider that their

Broj tjednih sati predavanja (tablica 6) suklađan je distribuciji nastavnika na one koji predaju razrednu ili predmetnu nastavu (tablica 4), odnosno veći broj tjednih sati imaju razrednici razredne nastave.

Za dvije trećine učenika u selekcioniranom uzorku razrednici smatraju da su prosječnog materijalnog stanja što je donekle u skladu s prethodnim nalazima (17,18), dok za četvrtinu procjenjuju lošije od prosječnog, a za tek 7 % bolje od prosječnog (tablica 7).

Interesantno je da samo za polovinu roditelja učenika u selekcioniranom uzorku razrednici izjavljuju redovitost u informiranju o učeniku, a za petinu kažu da se ne informiraju redovito. Za jedan značajan dio roditelja, odnosno gotovo četvrtinu od svih procjenjivanih učenika, razrednici iskazuju da ne znaju (tablica 8).

Gotovo polovina selekcioniranih učenika ima dobar akademski uspjeh ($M=3,28$; $SD=.93$), četvrtina vrlo dobar, a tek desetina učenika odličan uspjeh (tablica 9).

material status is average, which somewhat corresponds to the previous findings (17,18), while for one quarter it is worse than average and only 7% better than average (Table 7).

It is interesting that for only half of the parents of the students in the selected sample the class teachers declare regularity in attending parental meetings, and for a fifth they say they are not attending on a regular basis. For a significant part of the parents, or almost a quarter of all the estimated students, the class teachers claimed that they are not informed (Table 8).

Almost half of the selected students have a good academic achievement ($M = 3.28$, $SD = .93$), a quarter have a very good achievement, and only a dozen students have a great achievement (Table 9).

According to the teacher's estimation, more than three-quarters of all students in the sample (Table 10) need additional learning help, while additional help in behaviour regulation is required by two-thirds of the sample students (Table 11).

TABLE 6. Number of teaching hours weekly

	Min	Max	M	SD
Teaching hours weekly	1	25	11.05	8.11

TABLE 7. Teachers' estimation of material status in students' families

Material status in students' family	Frequency (N)	Percent (%)
Worse than average	59	24.4
Average	157	64.9
Better than average	18	7.4
Total	242	100.00
Missing	8	3.3

TABLE 8. Teachers' perception of parents' regular attendance at parental meetings

Parents' regular attendance at parental meetings	Frequency (N)	Percent (%)
No	48	19.8
Yes	131	54.1
I don't know	55	22.7
Total	234	96.7
Missing	8	3.3

TABLE 9. Distribution of students according to their academic achievement

Academic achievement	Frequency (N)	Percent (%)
Insufficient	7	2.90
Sufficient	32	13.20
Good	111	45.90
Very good	61	25.20
Excellent	25	10.30
Total	236	97.50
Missing	6	2.50

Prema razrednikovoj procjeni dodatnu pomoć u učenju trebaju gotovo tri četvrtine svih učenika iz uzorka (tablica 10), dok dodatnu pomoć u regulaciji ponašanja trebaju dvije trećine učenika (tablica 11).

Razrednici ženskog spola statistički značajno ($p < 0,05$) višim procjenjuju nepažnju kod učenika u selekcioniranom uzorku nego njihovi muški kolege, dok kod procjenjivanja impuzivnosti-hiperaktivnosti nema spolnih razlika (tablica 10).

Razrednici su nepažnju procijenili često prisutnom kod učenika u selekcioniranom uzorku, a impulzivnost-hiperaktivnost povremeno do često, što potvrđuje naša očekivanja o povišenim vrijednostima u odnosu na prethodno istraživanje u Hrvatskoj provedeno s općom populacijom učenika (7).

Female class teachers have statistically significantly ($p < 0.05$) higher estimates of students' inattention than their male colleagues in the selected sample, while gender influence has not been significant for impulsivity-hyperactivity behaviours (Table 10).

The teachers estimated that inattention is often present in the selected students' sample, and that impulsivity-hyperactivity presents itself occasionally or often, which confirms our expectations of higher values compared to the previous research in Croatia conducted within the general population of students (7).

The correlation matrix analysis (Table 13) suggests that certain symptoms related to ADHD are in significant correlations with virtually all variables. Symptoms of inattention are more

TABLE 10. Teachers' perception of need for additional help in learning

Need for additional help in learning	Frequency (N)	Percent (%)
No	63	26
Yes	178	73.6
Total	241	99.6
Missing	1	0.4

TABLE 11. Teachers' perception of need for additional help in behaviour regulation

Need for additional help in behaviour regulation	Frequency (N)	Percent (%)
No	75	31
Yes	165	68.2
Total	240	99.2
Missing	2	.8

Analiza utvrđene korelacijske matrice (tablica 13), ukazuje da su pojedini simptomi povezani s ADHD-om u značajnim korelacijama s gotovo svim varijablama. Tako su simptome nepažnje češće uočavali razrednici s većim brojem sati tjednog predavanja i procijenjenom višom razinom potrebe za dodatnom pomoći pri učenju i regulaciji ponašanja. Nepažnja kod učenika je u negativnom niskom odnosu s razrednikovom samoprocijenjenom kvalitetom odnosa s učenicom te akademskim uspjehom. Procijenjeni simptomi impulzivnosti-hiperaktivnosti su u niskom pozitivnom odnosu s brojem tjednih sati nastave poučavanja učenika, materijalnim stanjem te akademskim uspjehom, te umjereno povezani s procijenjenom potrebom za dodatnom pomoći u regulaciji ponašanja. Simptomi impulzivnosti i hiperaktivnosti su nisko negativno povezani s razrednikovom samoprocijenjenom kvalitetom odnosa s učenicom. Dobi-

commonly encountered by class teacher who teach more hours weekly with a higher estimated need for additional help in learning and behavioural regulation. Student inattention is negatively low in relation to the teachers' self-assessed quality of relationship with the students and their academic achievement. The estimated symptoms of impulsivity-hyperactivity are in a low positive correlation with weekly teaching hours, the material status and academic achievement and are moderately associated with the need for additional help in behaviour regulation. The symptoms of impulsivity and hyperactivity are associated negatively low with the teachers' self-assessed quality of relationship with students. Also, intercorrelations are found between the two dimensions of ADHD symptoms. It is also interesting that the age of the class teachers is not related to any observed variables of the ADHD syndrome.

TABLE 12. Gender differences in estimated students' behaviours related to ADHD syndrome

Teacher gender		N	M _{Rank}	Z
Impulsivity-Hyperactivity	Male	40	112.49	.71
	Female	198	120.92	
Inattention	Male	37	91.36	2.64*
	Female	199	123.55	

M_{Rank} - Mean Rank; Z - z-value of nonparametric Mann-Whitney test

TABLICA 13. Descriptive indicators of correlation coefficients

Variables	Descriptive indicators		Kendal-tau rank								Spearman r	
	M	SD	Relationship	Hours	Materials	Information	Success	Learning	Behaviour	Imp./Hyp.	Car.	
Teacher characteristics	Age	42.44	9.38	.08	.21**	.04	-.12*	.09	-.06	-.01	-.01	-.06
	Relationship	1.39	.54		.13*	.05	.09	.22**	-.14*	-.26**	-.31**	-.30**
	Hours per week	7.92	7.93			.20**	-.10	.19**	-.09	.15**	.26**	.27**
Student characteristics	Material	.82	.55				.21**	.40**	-.22**	.08	.23**	.05
	Information	.38	.49					.03	-.04	-.13*	-.11	-.06
	Success	3.28	.93						-.39**	.11	.20**	-.20**
Aid	Learning	.74	.44							.01	-.04	.30**
	Behaviour	.69	.46								.53**	.31**
ADHD symptoms	Impulsivity-hyperactivity	1.41	.95									.44**
	Carelessness	2.02	.70									

*p<0.05; **p<0.01

vene su i interkorelacije između dviju dimenzija simptoma ADHD-a. Zanimljivo je također da dob razrednika nije u odnosu ni s jednom promatranom varijablom iz skupine ADHD sindroma.

RASPRAVA

Dobiveni rezultati na selekcioniranom uzorku učenika temeljem ispunjavanja liste procjene razrednika (8) demonstriraju očekivanu spolnu zastupljenost od 85 % učenika (dječaka) i 15 % učenica (djevojčica). Slična zastupljenost je u populaciji učenika s dijagnosticiranim ADHD-om. Tako se u pregledu prethodnih istraživanja (2,3,5) navodi 4 do 5 puta veća pojavnost kod dječaka kao i razlike u kliničkim simptomima, pri čemu su hiperaktivnost i impulzivnost prisutniji kod dječaka, a teškoće s održavanjem pozornosti kod djevojčica što prati kasnije dijagnosticiranje u tretman.

Utvrđeno je da razrednici kod promatranih učenika sa simptomima povezanim s ADHD poremećajem procjenjuju često prisutnu nepažnju i povremeno prema često prisutnu impulzivnost/hiperaktivnost. U školskoj sredini djetetova koncentracija i usmjerenost na zadatak ključni su za sudjelovanje u nastavnom procesu. Nepažnja, impulzivnost i hiperaktivnost su „prepreka dobroj prilagodbi, zahtjevima i očekivanjima klasične škole i što se tiče učenja i što se tiče ponašanja“ (7). Razvojna teškoća promatra se u kontekstu okruženja koji generira prepreke ili facilitatore za ukupni razvoj djeteta. Razrednici procjenjuju kako dodatnu pomoć u učenju treba 73,6 % selekcioniranih učenika, a za 68,2 % učenika razrednici smatraju da trebaju dodatnu pomoć u regulaciji ponašanja. Radi se o populaciji učenika za koje su razrednici detektirali četiri i više simptoma nepažnje, te razrednici smatraju da za više od dvije trećine ovih učenika trebaju dodatnu podršku bilo u učenju bilo u ponašanju. Zasiurno su navedena ponašanja učenika veliki izazov

DISCUSSION

The results obtained from the evaluation of the teachers' rating (8) on a selected student sample show the expected gender representation of 85% of boys and 15% of girls. Similar representation is present in the population of students diagnosed with ADHD. Thus, in the previous study (2,3,5) a four to five times higher incidence was reported in boys, as well as differences in clinical symptoms, whereby hyperactivity and impulsiveness were more frequent in boys and attention problems are more present in girls, which is related to further diagnostic procedure and enrolment in treatment.

It was found that the class teachers assessed inattention as often present and impulsivity as periodically to often present in students under observation who had symptoms related to ADHD.

In the school environment, the child's concentration and focus on the task is crucial for participating in the teaching process. Inattention, impulsiveness and hyperactivity are "a barrier to good adjustments, demands and expectations of classical schools, as far as both learning and behaving are concerned" (7:52).

Developing difficulties are seen in the context of an environment that generates obstacles or facilitators for the overall development of the child. Class teachers estimate that 73.6% of selected students need extra help in learning, and for 68.2% students they believe that they need additional help in behaviour regulation. The above-mentioned student behaviours are certainly a major challenge for school teachers, and the question is whether selected students were involved in the diagnostic procedure for determining symptoms and diagnosis of ADHD, and whether adequate intervention procedures for behavioural and learning problems were provided.

Furthermore, there remains the question regarding the level of teacher qualifications for the identification and teaching strategies appropriate for students with symptoms related to ADHD. Con-

nastavnicima u školi, a postavlja se pitanje jesu li selekcionirani učenici bili uključeni u dijagnostički postupak utvrđivanja simptoma i postavljanja dijagnoze ADHD-a, te jesu li im osigurani primjereni intervencijski postupci za probleme u ponašanju i učenju. Nadalje, ostaje otvoreno pitanje o razini učiteljske osposobljenosti u identificiranju i korištenju nastavnih strategija primjerenih učenicima koji manifestiraju simptome povezane s ADHD-om. Slijedom navedenog vidljiva je povezanost niže razine smoprocijenjenog odnosa razrednika s učnikom s visokom procjenom potrebne dodatne pomoći učeniku u učenju. Ovi rezultati potvrđuju potrebu za unaprjeđenjem razrednikovih kompetencija za uspostavljanje kvalitetnih odnosa s učenicima (13,14), a osobito s učenicima s problemima u ponašanju i učenju. Isto tako, smatra se da je razrednikova procjena potrebe dodatne stručne pomoći učeniku veoma važan signal upravi škole koja bi trebala odgovoriti promptno i kvalitetno na potrebe učenika (11). To implicira međuovisnost postupaka identifikacije i intervencija, odnosno neophodan je proces identifikacije multidisciplinarnim pristupom utvrđivanja uzroka, ali i smjera intervencije u odnosu na uočeno ponašanje. Naime, identificiranje nepažnje, impulzivnosti i hiperaktivnosti u ponašanju djeteta i uključivanje u dijagnostički postupak prvi je korak u razumijevanju odgojno-obrazovnih potreba djece koja manifestiraju probleme u ponašanju i učenju.

Nedijagnosticirani učenici s ADHD poremećajem „ne mogu dobiti odgovarajuću potporu u nastavi što pojačava pojavnost njihovih teškoća i diskriminira ih u odnosu na druge učenike“ (20,23). U dijagnostičkom postupku utvrđivanja ADHD poremećaja učitelji imaju važnu i nezamjenjivu ulogu u opisivanju ponašanja učenika u školskoj sredini, ali učiteljske procjene samo su dio dijagnostičkog postupka.

Nadalje, zanimljivo je uočiti da je viši školski uspjeh učenika pozitivno povezan s procjenom razrednika o boljem materijalnim statusu i

sequently, there is a correlation between a lower level of the teachers' self-perceived quality of relationship with students with a high assessment of additional help needed in the students' learning.

This confirms the need to improve the teachers' competences to establish quality relationships with students (13,14), and especially with students with behavioural and learning problems. Likewise, it is considered that the teacher's assessment of additional professional assistance needed for the student is a very important signal to the school administration, which must respond promptly and efficiently to the needs of the student (11). This implies the interdependence of the identification and intervention procedures, i.e. the identification process through a multidisciplinary approach, is necessary for determining the cause and direction of the intervention in relation to the observed behaviour.

Namely, the identification of the occurrence of inattention, impulsivity and hyperactivity in the child's behaviour and involvement in the diagnostic procedure is the first step in understanding the educational needs of children who manifest behavioural and learning problems. Students with unidentified or unrecognized ADHD "cannot get the appropriate teaching support which increases the occurrence of their difficulties and discriminates against them in relation to other students" (20,23). In the diagnostic procedure for determining ADHD, teachers have an important and irreplaceable role in describing student behaviour in the school environment, but teacher assessments are just part of the diagnostic procedure.

Furthermore, it is interesting to note that the students' higher school achievement is positively correlated with the teachers' estimation of better material status and a greater incidence of impulsivity and hyperactivity symptoms, but negatively correlated with attention. New research questions are emerging about the correlation between the teachers' assessment of a higher incidence of impulsivity and hyper-

većom pojavnosti simptoma impulzivnosti i hiperaktivnosti, ali je negativno povezan s pažnjom. Otvaraju se nova istraživačka pitanja o povezanosti razrednikove procjene veće pojavnosti simptoma impulzivnosti i hiperaktivnosti i višeg materijalnog statusa i boljih ocjena.

Pozitivna povezanost većeg broja sati nastave tjedno s većom pojavnosti simptoma nepažnje i impulzivnosti/hiperaktivnosti mogla bi biti povezana sa činjenicom da učitelji razredne nastave poučavaju veći broj sati učenika (prosječno 18-20 sati) u odnosu na profesore predmetne nastave koji poučavaju prosječno 1 do 3 sata. To znači da razrednici imaju prigode uočavati ponašanja u različitim situacijama i duže vrijeme (različiti nastavni predmeti, situacije ručka, slobodnog vremena, izleti itd.) gdje stječu cjelovitiju sliku o ponašanju učenika.

Interesantan je rezultat koji pokazuje da učitelji percipiraju učenike čiji roditelji manje redovito dolaze na roditeljske sastanke i informacije o djetetu u školu, kao učenike kojima je potrebna dodatna pomoć u regulaciji ponašanja, ali ne i učenja. Vidljivo je također da potrebu za dodatnom pomoći u učenju razrednici vide za učenike slabijeg uspjeha i nižeg materijalnog statusa. Uz veću procijenjenu nepažnju kod učenika prisutna je i veća procijenjena potreba za dodatnom pomoći pri učenju i regulaciji ponašanja, premda su korelacije niske. No korelacije su značajne i srednje visoke između uočenih simptoma impulzivnosti-hiperaktivnosti i procijenjene potrebe za dodatnom pomoći u regulaciji ponašanja, što je i očekivano.

Metodološka ograničenja ovog istraživanja, prije svega, proizlaze iz postupka selekcije učenika koji manifestiraju simptome nepažnje temeljem subjektivnih procjena razrednika, bez podatka imaju li učenici utvrđenu neku teškoću u razvoju. Za daljnja istraživanja predlaže se izolirati poduzorak učenika koji imaju rješenje o teškoći u razvoju, kao i učenika koji imaju dijagnosticiran ADHD-a. Naime, kada su u pitanju učenici s dijagnosticiranim ADHD-om (4)

activity symptoms and higher material status and better school ratings.

The positive correlation between the higher number of weekly teaching hours with a higher incidence of symptoms of inattention and impulsivity/hyperactivity may be related to the fact that class teachers spend more hours weekly teaching to students (average 18-20) than subject teachers who teach students 1 to 3 hours per week on average. This means that class teachers have a chance to notice behaviours in different situations and for a longer time (different teaching subjects, lunch situations, leisure time, excursions, etc.) whereby they acquire a complete picture of the student's behaviour.

It is an interesting result that teachers perceive students whose parents are less likely to attend parental and information meetings at school as learners who need additional help with behavioural issues but not in the learning process. It is also evident that the need for additional help with learning is seen by the class teachers for students with an inferior academic achievement and lower material status. A possible explanation for the findings is derived from a school practice in which children of a lower financial status are often included in additional support for learning in the educational system through programs of extended stays or cooperation with non-governmental organization.

With a higher estimated inattention, there is a greater need for additional help in learning and behavioural correction, although the correlations are low. However, correlations are significant and moderately high between the observed symptoms of impulsivity-hyperactivity and the estimated need for additional help with behavioural issues, which is expected.

The methodological limitations of this study primarily derive from the selection process of students who manifest symptoms of inattention based on the subjective estimates of the class teachers, without any knowledge of whether the students have been diagnosed with any disabilities.

potrebno je provoditi multimodalni pristup u kojem je uz psihosocijalne tretmane potrebno provoditi i prilagodbu odgojno-obrazovnih postupaka i okruženja kao i medikamentne intervencije u skladu s medicinskom procjenom (2). Kao što je vidljivo, navedena su pitanja povezanija s intervencijskim spektrom nego s dijagnostikom i procjenom ADHD sindroma, premda su oba neodvojivo i podjednako bitna u teorijsko-praktičnom aspektu odgoja i obrazovanja i zaštite mentalnog zdravlja ovih učenika.

ZAKLJUČAK

Problemi u ponašanju i teškoće nepažnje uz okruženje koje ne pruža odgovarajuću potporu mogu značajno otežati optimalan psihosocijalni razvoj učenika te negativno djelovati na njegov kapacitet odgojno-obrazovne, a time i šire socijalne uključenosti. Stoga je osnovni cilj ovog istraživanja bio ispitati razrednikovu procjenu ponašanja učenika povezanih sa simptomima ADHD poremećaja, neka obilježja razrednika i učenika kao i relacije navedenih varijabli.

Očekivani nalaz ovog istraživanja da razrednici kod učenika za koje indiciraju najmanje četiri simptoma nepažnje, procjenjuju da je učestalost kod ovih učenika česta pojavnost ponašanja povezanih sa simptomima nepažnje i povremena do česta pojavnost ponašanja povezanih sa simptomima impulzivnosti i hiperaktivnosti.

Korelacijskim analizama utvrđena je povezanost obilježja razrednika (veći broj tjednih sati poučavanja i procjena potrebe za dodatnom pomoći u učenju i/ili regulaciji ponašanja) s ispitivanim dimenzijama. Nadalje, razrednikova samoprocjena nezadovoljavajućeg odnosa s učenikom povezana je s višom razinom prisutnosti simptoma na obje dimenzije. Školski uspjeh i materijalni status roditelja povezani su također s procjenom simptoma nepažnje i impulzivnosti/hiperaktivnosti. Niži akadem-

For further research we suggest isolating the sub-sample of students with disabilities as well as students diagnosed with ADHD. Specifically, for students diagnosed with ADHD (4), a multimodal approach is needed where psychosocial treatments need to be carried out with the adaptation of educational processes and environments as well as medical intervention in accordance with the medical assessment (2).

As can be seen, the questions are more related to the intervention spectrum than the diagnosis and the evaluation of the ADHD syndrome, although they are inseparable and equally important in the theoretical and practical aspects of education and mental health of the students.

CONCLUSION

Behavioural problems and inattention in an environment that does not provide adequate support can greatly aggravate the optimum psychosocial development of students and negatively affect their capacity for educational, and thus broader, social inclusion. Therefore, the main purpose of this study was to examine the teachers' assessment of the students' behaviour related to the symptoms of ADHD, the characteristics of class teachers and students as well as the relation of the mentioned variables.

The main finding of the study suggests that class teachers estimate that in students who are identified with at least four symptoms of inattention there will be a frequent incidence of behaviours associated with symptoms of inattention and occasional to frequent incidence of behaviours associated with symptoms of impulsivity and hyperactivity. The correlation of characteristics of class teachers (a greater number of weekly teaching hours and assessment of the additional help needed with student learning and/or behavioural regulation) with the investigated dimensions is established by correlation analyses.

ski uspjeh učenika povezan je s višom razinom razrednikove procjene nepažnje, i suprotno viši školski uspjeh s višom razinom simptoma impulzivnosti i hiperaktivnosti. Razrednikova procjena više razine potrebe za dodatnom pomoći u učenju povezana je s višom razinom pojavnosti teškoća nepažnje kod učenika, a potreba za dodatnom pomoći u regulaciji ponašanja s višom razinom impulzivnosti/hiperaktivnosti i nepažnje. Pravovremeno prepoznavanje razvojnih teškoća i rana dijagnostika imaju značajan utjecaj na oblikovanje podrške u školskom i obiteljskom sustavu. Tek dijagnostičkim postupkom utvrđivanja ADHD poremećaja mogu biti oblikovani programi podrške individualnim potrebama djeteta. Razrednike treba ohrabriti i educirati da sustavno promatraju ponašanje svojih učenika i da naprave procjenu prema valjanim i relevantnim listama procjene, ali isključivo u okviru multidisciplinarnog dijagnostičkog postupka, a ne kao meritoran pokazatelj djetetovih teškoća, kao što je njihova uloga (4). Procjene razrednika o pojavnosti nepažnje i impulzivnosti i hiperaktivnosti analizirani su iz konteksta obrazovnih znanosti i nužnosti upućivanja u dijagnostički postupak kako bi se izbjegle „nestručne“ procjene. Utvrđivanje etiologije ponašajnih teškoća nepažnje, impulzivnosti i hiperaktivnosti prvi je korak u razumijevanju odgojno-obrazovnih potreba djece kako bi ostvarili svoje potencijale.

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Furthermore, the teacher self-assessment of the quality relationship with the student is associated with a higher level of symptoms on both dimensions. School success and material status of parents are also related to the estimation of symptoms of inattention and impulsivity/hyperactivity. A student's lower academic achievement is associated with a higher level of the teacher's assessment of inattention and a higher academic achievement with a higher level of symptoms of impulsivity and hyperactivity. The teachers' perception of the students' need for additional help with learning is associated with a higher level of perceived occurrence of inattention by the student, while the need for additional help in behavioural regulation is associated with higher impulsiveness/hyperactivity.

Timely identification of developmental difficulties and early diagnosis have a significant impact on the design of support in the school and family system. Only through the diagnostic procedure for determining ADHD can programs be tailored to support the individual needs of the child. Teachers need to be encouraged and educated for systematic behaviour observation of their students and to make an assessment based on valid and relevant evaluation lists, but only within the framework of a multidisciplinary diagnostic procedure, rather than as a meritorious indicator of the child's difficulties, as is their role (4). The teachers' assessment of incidence of inattention and impulsiveness and hyperactivity are analysed from the context of educational sciences and the necessity of referral to a diagnostic procedure to avoid "unprofessional" estimates. Determining the aetiology of behavioural difficulties such as inattention, impulsiveness and hyperactivity is the first step in understanding the child's educational needs in order to realize their potential.

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